

SWEET BRIAR COLLEGE



3 2449 0425984 B



Digitized by the Internet Archive
in 2010 with funding from
Lyrasis Members and Sloan Foundation

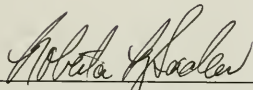
<http://www.archive.org/details/effectsofinduced00seay>

The Effects of Induced Mood on Person Perception and Stereotyping

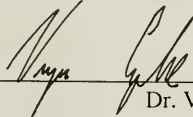
A Senior Honors Thesis in the Department of Psychology
Sweet Briar College

by Mary Gordon Seay

Defended and Approved with High Honors
5 April 2004

 4/15/04

Dr. Roberta Sadler – Thesis Project Faculty Advisor

 4/15/04

Dr. Virginia Cylke

 4/18/04

Dr. Keli Braitman

Running Head: EFFECTS OF INDUCED MOOD ON PERSON PERCEPTION

The Effects of Induced Mood on Person Perception and Stereotyping

Mary Gordon Seay

Department of Psychology

Sweet Briar College

Abstract

The present research investigates the effects of mood on person perception. Three experiments examined the influence of positive, negative, and neutral moods on social judgments. Experiment 1 tested the mood congruency effect, which proposes that negative moods elicit negative judgments while positive moods elicit positive judgments. Results were not supportive of mood congruency. In Experiment 2 the use of heuristics, such as stereotypes, associated with positive moods was examined. No significant main effect was found for mood and reliance on stereotypes of Hispanics. Experiment 3 posited that positive mood would yield simplified cognitive processing and increase instances of false alarms, thus enhancing the use of Black and Hispanic stereotypes. The majority of results were supportive of this hypothesis.

The Effects of Induced Mood on Person Perception and Stereotyping

Moods affect the lives and daily activities of people of all ages, ethnicities, and social classes. Our affective states influence our decisions and thoughts on both conscious and subconscious levels. In either case, moods are capable of altering our thoughts and behaviors in virtually every aspect of life. For example, it might be important to consider the possible effects of mood when engaging in social interactions or forming impressions of other individuals in a social context. The statement that first impressions are lasting impressions is commonly known and remembered by many people in situations such as job interviews or meeting perspective in-laws (DiGirolamo, G. J., & Hintzman, D. L., 1997; Dougherty, T. W., Turban, D. B., & Callender, J. C., 1994). In such instances, it would be helpful to know the mood of the person judging the interaction as well as how that mood might affect their proceeding judgments. The influence of mood on social judgment and related behaviors has been the subject of an extensive, continually growing body of research (e.g. Gendolla, 2000; Bodenhausen et al., 1994; Meyer et al., 1992). A discussion of the theory-centered research in the area is useful in providing a background and base of knowledge on the subject.

Recently, Gendolla (2000) investigated two methods in which affective states influence behavior. First, it is proposed that moods have an informational effect on our behavior through influencing our appraisals and behavior related judgments. It is believed that moods have an effect on our judgments by means of the mood congruency effect. The mood congruency theory holds that individuals in a positive mood will make more positive judgments and evaluations than persons in a negative mood. For example, happy persons, when asked to predict the chance of foul weather on the following day, will state that bad weather is less likely to occur, whereas sad persons will propose a higher chance of

unpleasant weather. Secondly, moods may also have a directive influence, thus shaping our preferences for behaviors in which we choose to engage. People in a positive mood often feel more comfortable with the efforts they put forth in a task, are better able to cope with the demands of a task, and usually finish a task at an earlier point than individuals in a negative mood (Gendolla, 2000). That is, happy people will answer questions posed on a questionnaire more quickly and with greater confidence, whereas people in a sad mood will second guess themselves and take longer to work through the questions, thinking in depth about their decisions.

In his research, Gendolla reviews four distinct theories regarding how mood informatively affects behavior and judgments. The first theory states that a priming effect may be responsible for the influence of mood on our thoughts and behaviors. The second theory suggests that mood is used as information when forming judgments and evaluations. As outlined by a third theory, mood may also be used as input in creating behavior related judgments. Lastly, it is proposed that the affect infusion model may influence judgments and decisions through both informative and priming methods. The four theories introduced here will be described in greater detail to more fully explain their roles shaping our behavior in different ways (Gendolla, 2000).

The priming effect theory for the influence of mood on thoughts and behavior involves a person's previous knowledge and experiences. For an individual, certain moods and emotions may be connected with certain types of information. Such forms of information include general knowledge, verbal labels or representations of expressive behaviors, and memories of past events that have been associated with certain emotions. In this case, mood congruent judgments are elicited by easier access to mood congruent

information stored in memory (Gendolla, 2000). For example, when a person, who is prone to motion sickness and has an intense fear of heights, is asked to predict the levels of excitement and fun to be had on a new roller coaster at an amusement park, they will use their previous knowledge in making their judgment. In turn they will conclude that the new ride is neither exciting nor fun. Therefore, a negative mood would make it easier to access preexisting mood-congruent information, leading to the use of this material in judgments and behaviors.

The second theory presented by Gendolla, which holds that mood is used as a source of information, is similar to the mood congruency effect. It is suggested that individuals make use of their existing mood states when making evaluative judgments through analyzing their feelings and attitudes toward a particular issue. Thus, people in a good mood should have more positive feelings towards the target and therefore make more positive judgments than those in a negative mood, which bears a likeness to the mood congruency effect. Following this idea, the processing strategy used to form judgments should also be affected by the use of mood as information. Positive moods do not indicate that something is wrong, therefore making a person more likely to rely on more simplistic processing strategies (e.g. stereotypes) that require less effort. A happy person considering employment applications of a White individual and a Hispanic individual might rely on common stereotypes, which come to mind easily, in making a decision about which person will be hired. The employer may conclude that Hispanics are less educated than Whites and therefore offer the job to the seemingly more qualified white individual. However, negative moods signal that something is amiss and should lead a person to engage in more extensive processing of information in developing a judgment (Gendolla, 2000). The employer might judge the same Hispanic and

White applicant differently when in a negative mood state by more carefully examining the true qualities of each applicant, without relying on stereotypes. Thus, the participants' mood provides them with information regarding their feelings about a particular topic, which is then used to determine the amount of mental effort and processing they should apply to a given task.

The use of mood as input in forming behavior related judgments is explained in the third theory posed by Gendolla (2000). The mood as input theory states that a person's behavior is affected by mood depending on the context in which the judgment is made. Gendolla (2000) states that individuals in a positive mood are more likely to decide that they have completed enough of a certain task and stop what they are doing than if they asked themselves if they enjoy the task they are working on. In this case, mood can also be viewed as a motivational factor under certain circumstances (such as when certain self-monitoring questions are asked). Some situations may heighten while others may decrease a person's motivation to continue a task depending on their mood state. Positive moods tend to lower motivation, as indicated by the mood as information approach, therefore happy persons will be more likely to stop and conclude that they have completed enough of the task. However, when asking themselves about their attitudes toward the assignment, the happy persons will most likely report that they enjoy the task and will be more likely to continue under these conditions. Therefore, depending on the questions posed and the context of the situation, different moods may have different effects on judgment formations (Gendolla, 2000). The mood as input theory differs from the first two posed by Gendolla (2000) in that it focuses more on the person's mood in terms of attitudes and feelings rather than providing cues to activate previously stored information.

Lastly the article mentions the affect infusion model as a form of informational and priming influence on judgments and decisions. First, it is posited that when the judgment is high in personal relevance and there is adequate cognitive capacity, moods should influence the formation of mood congruent judgments by acting as primers to specific information. When the individual gives adequate attention to and can relate personally to the target of a judgment, moods should prime the person to pay attention to certain forms of information while ignoring others. Secondly, mood as information should be used when there is a relatively inadequate cognitive capacity and the judgment is of low personal relevance to the individual (Gendolla, 2000). The mood as information model is expanded upon in prior research conducted by Forgas (1995) and provides additional background information for the current research.

Forgas (1995), proposed the affect infusion model as a multi-process approach to forming social judgments. His model focuses on the influence of mood in processing decisions and judgments. Four primary cognitive processing strategies are identified within the model as those which, under differing conditions, function in the development of social judgment. The first of these processes is the direct access strategy, which is the most simplistic in that it relies on the retrieval of stored, preexisting information. The direct access strategy is most often used when the target individual is prototypical and familiar or well known, when there is no demand for elaborative processing, and when the task is not personally relevant to the judge. Motivated processing, the second method of processing, is used frequently by individuals who are expected to produce a particular type of judgment (such as when asked to answer specified questions regarding the target). These persons should be motivated to use more selective and targeted information in satisfying a

predetermined objective. These first two judgmental processes are considered to be low-infusion, meaning that mood may play little or no role in the resultant social judgment due to the presence of preexisting information or target goals (Forgas, 1995).

The last two processing mechanisms are those most likely to be influenced by mood states and are used in conditions in which the judge has neither a prior knowledge base/appraisal nor a specified judgment outcome to work towards. The third processing strategy outlined in the affect infusion model is the heuristic processing strategy. Such cognitive shortcuts are mostly used under conditions when the judge feels little or no personal relevance of the task and is of limited cognitive capacity, meaning that he or she does not have full use of cognitive resources. The heuristic method is also likely to occur when the target is unfamiliar to the perceiver as well as when there are inadequate resources available for cognitive processing (e.g. a shortage of time). The fourth method of processing, substantive processing, is the most demanding of the four and requires an integration of novel and preexisting information in producing a judgment. Substantive processing is most likely used when the judge, although not specifically motivated to develop a certain outcome, has a specific need for accuracy along with sufficient cognitive capacity to perform such a judgment. The target subject, in this case, is usually more complex and atypical of any preexisting information (e.g. a blue pig) (Forgas, 1995).

Current research suggests that social judgments may also be influenced by other factors as outlined in a review by Schwarz (2002). Several situations and contextual conditions make it more likely that mood will impact a person's decision making through relying more strongly on their feelings. It is believed by Schwarz (2002) that an individual who is unfamiliar with his or her target will rely more greatly on feelings in passing

judgment on them. A similar effect can also be found as task demands increase and cognitive capacity decreases. When the judgmental task becomes overly complex or confusing, the judge is likely to rely on their feelings toward the situation which may be influenced by the momentary mood state of the individual. In addition, it is stated that when cognitive resources are utilized in part by other factors, such as conflicting task demands or time restrictions, the effects of mood and the likelihood of the judge to rely on their feelings increases (Schwarz, 2002).

Schwarz also discusses the theoretical underpinnings of the use of stereotypes in the formation of social judgments. Generally, persons in a positive mood are more likely to engage in a top-down, heuristic style of information processing which relies on more general or preexisting information and pays less attention to detail. Conversely, individuals in a negative mood are more inclined to utilize bottom-up, systematic strategies that make use of and integrate the details of the information at hand in forming judgments. In compliance with the statement that positive mood encourages the use of heuristic processing methods, it is not surprising that the use of stereotypes is also increased. Stereotypes are often stored as general knowledge and come to mind quickly and easily. They often contain information that is commonly associated or is frequently observed as characteristic of a particular group (Schwarz, 2002). Therefore, when an individual is in a positive mood, they might be more likely to use such general information which requires little effort to recall. Unless the target person greatly differs from the stereotype, the judge in a positive mood is likely to make use of stereotypes in forming their judgment. Furthermore, persons in negative mood states would be less likely to make use of stereotypes in social judgments. Theoretically, negative moods are conducive to more extensive processing strategies, thus increasing the chances

that the judge will take time to process the individuating characteristics of the target (Schwarz, 2002).

The current research seeks to further understand how induced mood influences our perception of others and the use of stereotypes within these assessments through a series of three experiments. Taking into account the various theoretical frameworks described above, the present research examines how positive, neutral, and negative moods affect the overall valence of social judgment towards an unknown person (Experiment 1). Secondly, the affect of induced mood on the participants' engagement in the stereotyping of an unfamiliar individual is assessed (Experiment 2). Stereotyping is further examined in Experiment 3 through evaluating the cognitive processing styles utilized in the use of such heuristics. If significant results are found, these three experiments will provide further support for the existing body of research that upholds the mood congruency effect and asserts the detrimental affects of positive mood on the formation and use of stereotypes in social judgments.

Experiment 1

Experiment 1 was designed to test for mood-congruent effects when participants were either induced into positive, neutral or negative moods and asked to form social judgments about an unknown target individual. The mood-congruent judgment effect assumes, for example, that a happy person will make more positive judgments toward a given target, while a person in a negative mood will judge the same target more harshly. Previous research Meyer, Gaschke, Braverman, & Evans (1992), has investigated the possible effects of mood states on the mood-congruency effect. These researchers proposed that positive and negative emotions would affect judgments about the probability of particular events in different ways.

They also expected that mood-congruent judgments would be most prevalent when there was a matching pleasant or unpleasant emotional factor. Further, the researchers believed that mood-congruency would be noticed more frequently when participants were presented with vague as opposed to familiar questions involving topics that they may have previous knowledge about (Meyer et al., 1992).

Participants in the study conducted by Meyer et al., (1992) were first instructed to either solve problems objectively or subjectively (between subjects) and were to answer both specific and vague questions (within subject). Each participant was given twenty-four positively valenced and twenty-four negatively valenced questions. Half of the positive questions, as well as half of the negative, were phrased vaguely with few details and half were more specific and contained more detailed information. A negative, specific question might have been: How many college students out of 1,000 will forget to send a birthday card to their father because of forgetfulness or a poor family relationship? An example of a positive, vague question would be: What is the probability that someone will marry their soul mate and live with them happily for the rest of their life? Participants in the objective condition were asked to make use of previously stored information in answering the questions, such as knowledge gained in a classroom setting. Subjects in the subjective condition were asked to base their answers solely on their personal life encounters and experiences, such as outcomes of certain life events or similar problems that they may have faced. After judgments were made, students were instructed to complete a mood questionnaire in which they were given a list of mood adjectives, each with a corresponding scale. They were asked to mark their current emotional state on the scale with extremes at

definitely feel and *definitely do not feel*. This scale was used as an indicator of each participants affective state during the experiment (Meyer et al., 1992).

As expected, results of this study were supportive of the hypotheses and yielded positive correlations between certain moods and judgment. Thus, the mood-congruent judgment effect was present for both positive and negative mood conditions. More negative judgments were formed by participants in the negative mood condition while those in positive moods generated more positive judgments. It was also found that the mood-judgment correlation was stronger with vague questions (e.g., What is the likelihood of forgetting a sibling's birthday?) than with specific questions (e.g. How many students out of 1,000 will forget a sibling's birthday because they are forgetful or have a poor sibling relationship?). A greater relationship between mood and judgment was also found when questions were answered objectively, without taking into account the participants' own experiences or previous knowledge of the subject, rather than subjectively, which includes the students' own knowledge based inferences. (Meyer et al., 1992).

Previous research conducted by Forgas and Bower, (1987), has also demonstrated the presence of the mood-congruent judgment effect. In concordance with the mood congruency theory, researchers hypothesized that happy participants would make more positive judgments and participants in a negative mood would make more negative judgments. It was also expected that happy participants would make their judgments more quickly than unhappy participants (Forgas & Bower, 1987). Such research confirms the link between mood and the formation of social judgments while supporting the existence of the mood congruency effect.

Upon arrival students were given a test of personality and social adjustment and were informed that their responses would be scored and graded. Immediately after completing the test, the experimenter supposedly scored the questions and returned the results. Participants in the positive mood condition were told that their performance was very good while students in the negative mood condition were informed that their performance was disappointing and inadequate. Next, participants were asked to read about and form impressions on four different people with varying traits. Then they were to rate each target person on a 9-point scale which assessed personal qualities of the individual. Adjectives at each end of the scale represented the extreme positive or the extreme negative side of each characteristic that the target was to be rated on. After completion of the rating questionnaire, students were asked to recall and write down anything they could remember from the characters previously presented. Lastly, a forced-choice recognition test was administered to bring into mind the characteristics of the target persons (Forgas & Bower, 1987).

Findings of this experiment revealed a significant difference between participants in the positive and negative mood conditions, suggesting that the mood induction task was successful. As predicted, happy moods led participants to judge target individuals more favorably than participants in the negative mood condition. Also in accordance with these results is the finding that happy participants made a greater number of positive as opposed to unfavorable judgments. In addition, participants in a good mood made their positive judgments more quickly than negative judgments, while participants in a negative mood spent less time on their negative judgments. Mood congruency led to faster generation of positive judgments by happy individuals, and faster formation of negative judgments by

unhappy persons. Thus mood-congruent judgments were formed more quickly than those inconsistent with mood condition (Forgas et al., 1987).

The mood-congruent judgment effect has also been investigated in more recent research (Innes-Kerr & Niedenthal, 2002). Half of the undergraduate participants were induced into one of the three mood conditions (positive, neutral, and negative) by watching film excerpts containing the appropriate mood valence. Students also listened to emotionally valenced classical music throughout testing in order to maintain their induced mood states. The other half of the participants were mood induced using sentence unscrambling tasks, which were either positive, neutral, or negative in their tone. Following mood induction students were asked to read a story about the life of an unknown person that could be interpreted as either somewhat sad or somewhat happy. Next they were to answer several questions about the target's emotional state, reactions to events which occurred in the story, the target's cat, and target's state of mind. Each question was followed by a bipolar scale, ranging from -2 to 2, with anchors containing positive and negative adjectives relating to the question. Lastly participants completed the Brief Mood Introspection Scale (BMIS) (Mayer & Gaschke, 1988) to measure the effectiveness of the mood induction procedures.

Results of this study indicated that mood induction was effective in that participants in the positive mood condition were found to be happier than those in the neutral condition who, in turn, were found to be happier than participants in the negative mood condition. Analysis of the effects of mood on participants' social judgments revealed that, as expected, participants in the positive mood condition answered all questions more positively than subjects in the neutral mood condition. The participants in the neutral mood condition also made more positive judgments than students in the negative mood condition (Innes-Kerr &

Niedenthal, 2002). Thus, the results of this study provide further support for the mood-congruent judgment effect using induced mood conditions as well as a strong theoretical basis for the current research.

The mood-congruent judgment effect will be further explored in the present research. In the current study a mood induction was used, similar to that found in previous research by Ciarrochi & Forgas (1999), which has been found to be effective in eliciting the desired affective states. Mood was induced by speaking into a tape recorder about specific positive or negative events in the participants' lives, or about some aspect of their daily routine as opposed to speaking about which of their body parts they liked the most or liked the least. A target individual was described in a brief passage which provided the basis on which participants make their judgments. In accordance with the mood-congruent judgment effect, it was expected that participants in a positive mood would make more positive judgments while those in a negative mood would make more negative judgments. Participants in the neutral condition were expected to create judgments that were valenced in between those of the positive and negative conditions.

Method

Participants

Twenty-seven female undergraduate college students participated in the current study for extra credit in their psychology courses.

Materials and Scoring

A standard tape recorder and a blank cassette tape were used during mood induction to record each participant's statements about positive, negative, or neutral events that had occurred in their lives. The recorded tapes were never listened to, but were only used for the purpose of inducing the participants' mood. The Positive and Negative Affect Schedule

(PANAS) (Watson, Clark, & Tellegen, 1998) was administered to each participant in order to assess current mood state. Since it was possible that the stories told by each participant during mood induction would vary greatly, this scale was chosen due to the variation of mood adjectives that it contained. The scale consisted of twenty adjectives with meanings that conveyed affective states. Half of the adjectives were positive in valence (e.g. interested, excited, enthusiastic) and half conveyed a more negative mood state (e.g. distressed, upset, guilty). Instructions for the scale asked participants to indicate the extent to which the participant was currently feeling each of the emotions listed. Possible responses for the amount each adjective was felt were 1 (*very slightly or not at all*), 2 (*a little*), 3 (*moderately*), 4 (*quite a bit*), and 5 (*extremely*) (Appendix A).

Participants' self reported mood scores were computed from this scale by averaging their responses for adjectives listed. Separate means were calculated from positive and negative adjectives to produce a positive and a negative mood adjective score for each participant. Scores for negative adjectives were reverse coded. Low scores for negative adjectives and high scores for positive adjectives were considered indicative of effective mood induction. Neutral mood induction was effective when scores fell towards the middle of the range.

The stimulus presented to each participant was one of two 123-word paragraphs describing an unfamiliar target, either a man or a woman. Information that could possibly elicit bias (i.e. race, physical characteristics) was not included in the descriptions. The person was described in the most generic terms possible. The description attempted to convey an average person with no special qualities or features that would stand out as special or extraordinary (Appendix B).

An evaluative questionnaire was also administered to participants for the purpose of gathering their judgments about the target man or woman described in the preceding paragraph. The questionnaire contained fourteen trait adjectives with corresponding nine-point Likert scales. Half of the adjectives were considered to be positive in valence (e.g. sociable, careful, friendly) and half were negatively valenced (e.g. undependable, hostile, dishonest). Participants marked their judgments along a Likert scale with anchors at 1 (*very true*) and 9 (*not at all true*) (Appendix C).

Scores were calculated for the trait adjective questionnaire by taking the sum of all fourteen ratings from each participant. Rating totals were subject to range between 14 and 126 for all participants. Lower scores were indicative of more positive judgments, while higher scores marked more negative overall perceptions of the target individual described in the stimulus paragraph. For this study, all scores were found to range between 26 and 72.

Procedure

Participants were randomly assigned to each condition prior to their participation. Upon arrival, all participants were greeted by the experimenter and instructed to read and sign the informed consent form. Each person was then led to an individual testing room. Participants were inducted into either a positive, neutral or negative mood state by speaking into a tape recorder for five minutes about either a particularly happy event, reciting their daily morning routine, or speaking about an event that was specifically bothersome respectively. They were instructed to go into detail about the events, including names, places, and times, and explain any emotions that were experienced during the episode. A similar mood induction procedure was found effective in previous research (Bodenhausen, et al., 1994).

After five minutes had passed, the experimenter entered the testing room and informed participants that they would have two minutes to complete a questionnaire. This questionnaire was the PANAS scale and was used to evaluate their current mood state immediately following mood induction and served as a mood manipulation check. The questionnaire contained twenty mood adjectives and asked participants to rate the level at which they currently felt each one on a scale of 1 (very little or not at all) to 5 (extremely). They were instructed to indicate their response on a blank next to each mood adjective.

The experimenter again entered the room after the allotted two minutes had passed and administered a descriptive stimulus paragraph of an unknown person along with a questionnaire to rate the target person. In an attempt to control for gender effects, half of the participants received a description of a man and half received a description of a woman. All participants were instructed to turn the description over and place it at the top of their desk when finished reading, so as to not refer back to it later, and immediately complete the questionnaire. Participants were asked to rate the individual on fourteen trait adjectives on a nine-point scale ranging from 1 (*very true*) to 9 (*not at all true*) of the person's character. They were instructed to mark their response by circling the one number on the scale that corresponded to their rating of the individual. Five minutes were allotted for both reading the description and completing the questionnaire. The experimenter then reentered the room and collected all testing materials. Participants were debriefed and informed of the true nature of the experiment, completing their participation in the experiment. The investigator answered any questions regarding purpose and procedures of the study.

Results

All data were analyzed using the StatView computer program.

Mood Manipulation

Separate averages were calculated for positive and negative mood adjectives listed in the PANAS (see Table 1). Participants in the positive mood condition had the highest positive rating mean ($M = 3.66$) and the lowest mean for negative ratings ($M = 1.59$) across conditions. The negative mood condition reveals an average of positive mood ratings which is lower than positive but higher than neutral mood ratings ($M = 2.18$). The negative mood ratings for this condition produce higher means than both the positive and neutral conditions ($M = 2.45$). Scores from participants in the neutral mood condition report the lowest positive rating mean between conditions ($M = 2.05$) and a negative rating mean that falls between those of positive and negative mood groups ($M = 1.64$).

[Insert Table 1 Here]

Two analyses of variance (ANOVAs) were performed to examine the relationship between mood condition and mean self-reported mood scores for positive and negative trait adjective scores. Results from the positive mood adjective scores revealed a significant main effect for mood, $F(2, 26) = 7.46, p = .003$ (see Table 2). The Fisher's PLSD post hoc analysis indicated that participants in the positive mood condition had self-rated positive trait adjective scores that were significantly higher than the ratings of participants in negative ($p = 0.002$) and neutral ($p = 0.01$) mood conditions. The ANOVA for negative mood adjective scores also revealed a significant effect for mood, $F(2, 24) = 4.58, p = .02$ (see Table 3). A post hoc analysis indicated that participants in the negative mood condition reported higher

Table 1

*Mean Mood Adjective Scores from the Positive and Negative Affect Schedule for Positive, Negative, and Neutral Mood Conditions:
Experiment 1*

Positive Trait	Negative Trait
Score Mean	Score Mean
Positive Mood Condition	
3.66	1.59
Negative Mood Condition	
2.18	2.45
Neutral Mood Condition	
2.05	1.64

Note. Mean mood adjective scores reported are those of all participants in each mood condition.

negative trait adjective scores than participants in the positive ($p = 0.01$) and neutral conditions ($p = 0.02$).

[Insert Tables 2 and 3 Here]

Test of Hypothesis

In analyzing the data from the positive and negative mood adjectives questionnaire, a 3 (mood: positive, neutral, negative) $\times$ 2 (description: male or female) ANOVA on trait score sum was performed (see Table 4). The analysis revealed no significant effects for mood, $F(2, 21) = 1.79, p = .19$, or gender, $F(1, 21) = 1.06, p = .32$, on the valence of reported judgments toward the stimulus person. There was also no interaction effect found between mood condition and the gender of the stimulus description, $F(2, 21) = .225, p = .80$. Therefore, the hypothesis stating that the mood congruency effect would be found, such that participants induced into a negative mood will make more negative judgments about the target individual and participants in a positive mood would make more positive judgments, was not supported.

[Insert Table 4 Here]

An additional one-way ANOVA was performed to test the effect of positive, neutral, and negative mood conditions on the scores for judgment of the target person (see Table 5) since there was no significant effect found for gender. Again, no main effect was found, $F(2, 24) = 1.95, p = .16$. This reveals that mood condition did not affect participants' judgments of the person described in the stimulus paragraph. However, the means computed in this analysis were indicative of a moderate trend (see Table 6). Such a trend infers that participants in the neutral condition placed slightly more negative judgments on females ($M = 55.750$) than males ($M = 46.470$). Although the mean scores from

Table 2

Analysis of Variance for the Effects of Mood Condition on Positive Mood Adjective Scores: Experiment 1

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	7.46	0.92	0.003
error	26	(0.725)		

Note. A significant difference in the scores for positive mood adjectives was found between mood conditions.

Table 3

Analysis of Variance for the Effects of Mood Condition on Negative Mood Adjective Scores: Experiment 1

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	4.58	0.72	0.02
error	24	(0.488)		

Note. A significant difference was found for scores of negative mood adjectives between mood conditions.

Table 4

*Analysis of Variance for Mood and Gender Effects on Judgment:
Experiment 1*

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	1.79	0.33	0.19
Description (D)	1	1.06	0.16	0.16
M $\times$ D	2	0.23	0.08	0.80
error	21	(134.45)		

Note. This analysis reveals no significance for the effect mood condition or description gender on the overall valence of judgments made toward the target stimulus.

participants in the positive and neutral conditions are very close, the means from the neutral condition are lower than the other groups. In this case, students induced into a negative mood, judged the target person more positively ($M = 43.67$) than students in the positive ($m = 53.50$) and neutral ($M = 51.25$) conditions. The trend reveals findings which are inconsistent with the mood congruency hypothesis. Although not statistically significant, the means indicate that more positive judgments were formed by participants in the negative mood condition while more negative judgments were formed by subjects in the positive mood condition.

[Insert Tables 5 and 6 Here]

Additional Analyses

A correlation matrix was used to examine the relationship between the participants' positive and negative mood rating scores and each trait adjective judgment scores (see Table 7). Although no sound relationships were found, the trait adjectives Hostile ($r = 0.46$), Dishonest ($r = 0.44$), and Disorganized ($r = 0.49$) revealed stronger positive correlations with the positive mood rating scores than the remainder. Again in opposition to the hypothesis, as self-rated positive mood scores increased among participants, the target person was judged slightly more strongly on these three negative characteristics than the others.

[Insert Table 7 Here]

Discussion

The results of Experiment 1 diverge from previous studies that provide support for the mood congruency theory (Meyer et al., 1992; Forgas & Bower, 1987; Innes-Kerr & Niedenthal, 2002). Trends revealed in the statistical analyses of the data indicate that

Table 5

Analysis of Variance for Mood Effects on Judgment: Experiment 1

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	1.95	0.35	0.16
error	24	(125.58)		

Note. This analysis reveals no significance for the effects of mood condition on the valence of judgments made toward the stimulus target.

Table 6

Mean Judgment Scores for Positive, Neutral, and Negative Mood Conditions: Experiment 1

Mood	Male	Female	Overall
Condition	Description	Description	Mean
Judgment Scores			
Positive	52.67	54.75	53.50
Neutral	46.75	55.75	51.25
Negative	42.40	45.25	43.67

Note. The reported means indicate that participants in the positive mood condition allotted higher scores to the target stimulus, and therefore judged them more negatively than did participants in the neutral and negative mood conditions. Participants in the negative mood condition had the lowest means and therefore judged the target person more positively than did participants in both the positive and neutral mood conditions.

Table 7

*Correlations Among Positive and Negative Mood Rating Scores
and Trait Adjectives: Experiment 1*

Trait		
Adjective	Positive Mood Score	Negative Mood Score
Sociable	-0.31	0.18
Undependable	-0.24	0.21
Careful	0.15	-0.01
Friendly	-0.12	0.23
Hostile	0.46*	0.06
Intelligent	0.09	-0.18
Dishonest	0.44*	-0.08
Aggressive	0.27	-0.13
Trustworthy	-0.06	0.04
Forgetful	0.31	-0.24
Hard Working	0.27	-0.30
Disorganized	0.49*	-0.30
Sloppy	0.39	-0.33
Competent	0.35	-0.06

Note. Entries with asterisks reveal slight positive correlations between positive mood and an increased score, which indicates a more negative judgment for the characteristics of hostile, dishonest, and disorganized.

participants in the positive mood condition generated more negative judgments while subjects in the negative mood condition formed more positive judgments. The findings contrast the hypothesized mood congruency effect which assert that positive moods will elicit positive judgments and negative moods will elicit negative judgments. The small sample size (27 participants as opposed to the 202 used by Meyer et al., 1992), as well as the use of only female participants in this experiment, may account for some of these differences.

The differences in findings might also lie within the mood induction procedure. The stories dictated by each participant during mood induction may have varied in the degree of positive or negative valence. For example, one participant's recollection of a happy event from their past may have been more emotional and elicited more positive feelings than the story of another participant in the same mood condition. Differences in the degree of mood induction may have therefore created differences in the valence of judgments made towards the target individual. It may also be the case that subjects did not actually speak about their past experiences since they were alone in a room while recording their accounts. Another possibility pertaining to the mood induction task could be that the effects produced by the procedure were not strong enough to bring about the desired differences in judgment.

The participants' active adjustment of their attitudes towards the target may have also led results to deviate from the mood congruency theory. Subjects in the positive mood condition may have judged the target more negatively in order to maintain their positive mood state and make themselves appear superior by comparison. Participants in the negative mood condition may have judged the target more positively in an attempt to feel better about themselves. Unhappy participants may have believed that an act of kindness, such as making a positive judgment, might possibly bring them greater happiness.

The first suggestion for future directions with this experiment is to greatly increase the sample size. Testing more participants might account for factors such as a lack in responsiveness to the mood manipulation procedure. Previous research, such as that conducted by Meyer et al. (1992), have found significance with the use of a large number of subjects. Including male participants in future studies may also produce greater congruence with the mood congruency theory, since previous research has tested both male and female subjects. The use of subjects from both sexes will also allow for greater generalizability to the population. The mood induction procedure itself may also need altering so that participants are induced into their assigned mood with the same emotional stimuli. As mentioned above, their recount of previous life experiences may be more or less negative for one participant than the next. Therefore, the mood induction should be constant between participants so that each receives the same stimulus for positive, negative, and neutral moods. Making adjustments to this procedure would control for differences in the degree of each participant's induced mood. Lengthening the amount of time allotted for mood induction may also lead to greater effects of mood on the participants' social judgments. Applying these changes might produce results more similar to those of other studies which have provided support for the mood congruency theory.

Experiment 2

Experiment 2 was conducted to determine the effects of induced positive, negative, and neutral moods on the use of stereotypes in making social judgments about unknown Hispanic target individuals. As stated in previous literature, stereotypes are derived from our knowledge and understanding of characteristics belonging to a particular group (Jones, 1991). Traits that are commonly found among members of a particular group are often

assumed to belong to many other members of the same group. Many times stereotypes are formed and used on the basis of ethnicity and contain negative implications. For example, while Whites receive more favorable evaluations, Hispanics are frequently perceived as lazy, ignorant, and aggressive in character. Not only do different perceptions arise with respect to personality traits, but more negative stereotypes for Hispanics have been reported with regards to socioeconomic status, in that they earn less money and hold less prestigious occupations than do ethnically nondescript persons (Jones, 1991).

Previous research conducted by Esses and Zanna (1995) investigated the effects of induced positive, neutral, and negative moods on the likelihood that participants would attribute negative stereotypes to various ethnic groups. The investigators in this experiment were interested in determining whether or not different mood states would elicit various interpretations of ethnic stereotypes. Participants were either induced into a positive, neutral, or negative mood state by reading a series of 60 emotionally charged statements similar to those devised by Velten (1986), which became either increasingly negative or increasingly positive in tone as they continued to read. Depending on mood condition, subjects were also instructed to speak into a tape recorder about an event in their life that was either particularly happy, neutral, or was especially negative and unhappy. After mood induction the researchers instructed participants to complete a series of five scales ranging from -3 to 3 to check for the effectiveness of the mood manipulation. The extremes of the scales included: anxious-calm, unhappy-happy, negative-positive, depressed-elated, and bad-good (Esses & Zanna, 1995).

Each participant was then tested for his or her expression of ethnic stereotypes among six ethnic groups including Native Indian, Pakistani, English Canadian, Chinese, Jewish, and

Arabic. Participants were instructed to list the characteristics that they thought were typical of each ethnicity and to estimate the percentage of members of each ethnicity that possessed each trait. Finally, subjects were told to assign a positive or negative valence to each trait by marking ++, +, -, or – next to each one (Esses & Zanna, 1995).

Results indicated that the mood induction procedures were effective according to the self-report of each participant in that subjects in the happy mood condition were significantly happier than participants in both the neutral and sad participants, while subjects in the unhappy mood condition were in a more negative mood than the other conditions. Tests of the main hypothesis were significant in that participants in the negative mood condition used more negative characteristics when describing members of the Pakistani and Native Indian ethnicities than did participants in the positive mood condition. Similar results, although non-significant, were also identified for the Chinese and Jewish ethnicities. The stereotypes listed for the English Canadian group were the most positive for participants in the happy and sad mood conditions, which is interesting since the majority of the subjects belonged to this ethnicity. There was no trend evident for the Arabic group (Esses & Zanna, 1995). In drawing from the theoretical basis of Experiment 1, the findings of this research on stereotyping indicate the possibility that the mood-congruency effect may also influence stereotyping in certain situations.

Other previous research has specifically focused on the effects of mood on projections of stereotypes in social judgements (Bodenhausen, Kramer, & Süsser, (1994); Forgas & Feidler, (1996); Esses & Zanna, (1995)). Investigators have exclusively examined the effect of happy mood states on the use of stereotypes (Bodenhausen et al., 1994). Bodenhausen, et al. focused their research on stereotyping within the criminal justice system.

The main objective in this research was to test the influence of happiness on stereotyping of persons who had supposedly committed a certain misdeed in hopes of providing further support for prior research that has revealed positive moods to enhance stereotype usage. Experimenters induced either positive or neutral mood by instructing undergraduate participants to write about particularly exciting and happy events in their past (happy mood condition) or to write about the routine events of the preceding day (neutral condition) (Bodenhausen et al., 1994).

After completing a questionnaire to assess the effectiveness of mood induction, participants were asked to read one of two cases from a student judiciary at another university while assuming the role of a judicial committee member. Half of the participants read a case about a student who physically assaulted their roommate while the other half read a case about a student who cheated on a math test. Each case contained evidence that implied both innocence and guilt. Also, half of the assault cases contained an offender with an identity stereotypically associated with the transgression, such as the Hispanic name Juan Garcia, while half read about an ethnically non-descript individual, such as John Garner. The cheating cases also contained variable information. Half of these cases contained information indicating the student's success and respect as an athlete while half of the cases omitted this information. After participants had read their assigned cases, they were asked to rate the probability that the accused student was guilty. Students were told to mark their judgment on an 11-point scale with extremes at 0 (*not at all likely*) and 10 (*extremely likely*) (Bodenhausen et al., 1994).

Results from this research indicated that mood induction was effective. In comparing self-report ratings among participants, scores of the participants in the happy mood condition

showed that they were indeed happier than participants in the neutral mood condition. Results from the hypothesis testing were consistent with previous literature revealing an increase in the use of stereotypes for participants in the happy mood condition. From these findings, investigators proposed that the members of stereotyped groups, such as Hispanics, might be at a disadvantage when the person passing judgment on them is in a happy mood state (Bodenhausen et al., 1994). Similar results have been found in more recent research on the effects of mood on intergroup discrimination (Forgas & Fiedler, 1996).

Researchers have examined the influence of positive and negative mood states on discrimination between in-group (persons with whom one can relate to in some manner) and out-group members (persons with whom one may have little or no association with) by assessing participants' judgments and allocation of rewards to these different individuals (Forgas & Fiedler, 1996). Thus, their research was not only concerned with the effects of positive and negative mood states, but also the effects of the minimal group paradigm (Tajfel, 1970). The minimal group paradigm suggests that simply placing individuals into distinct categories or groups will produce discrimination between groups. Further discussion of the procedures and results provides a more extensive and coherent explanation of the research.

During their investigation, participants were first administered a judgment task, containing several geometric shapes, and were asked to estimate their surface areas. Next they were instructed to watch a video clip of either a sad or happy scene (to induce a happy or sad mood state) while the experimenter scored their first judgment task. After the video the participants were to indicate their current mood on a continuum with extremes at "very sad" and "very happy". The experimenter, after having scored the judgments of the geometric shapes, reported to the subject that they either belonged to a group of

underestimators or overestimators. Then participants were instructed to complete a series of eight reward allocation matrices in which they were to give rewards to two individuals, one being an in-group member and one being an out-group member. One of the individuals was an overestimator and one was an underestimator. An in-group member was an individual who possessed the same label as the participant was given, either overestimator or underestimator. Thus, the in-group member would have more personal relevance to the subject than the out-group member with the opposing label. Participants were told to choose 1 of 13 different reward allocations which ranged from least to most discriminatory in the amount of reward. The participant could either choose rewards that would either maximize differences in reward between in-group and out-group members, maximize the reward for both groups, or maximize the gain for only the in-group member (Forgas & Fiedler, 1996).

The analyses of data revealed that the mood induction procedure used was effective as participants in the happy mood condition reported a happier mood state and participants in the negative mood condition reported their mood as more sad. Findings on the discrimination task were also significant; indicating that participants in the happy mood condition discriminated more often between in-group and out-group members than did participants in the sad condition. Researchers suggest that this effect may be due to processes related to the affect infusion model (Forgas, 1995), which proposes that happy subjects may rely on simple heuristic processing that would make it more likely to use group membership information in forming their judgments and allocating rewards to group members (Forgas & Fiedler, 1996). Therefore, participants would be more likely to discriminate using labels which either matched or were different from their own assigned label.

The present experiment is based on previous literature that has found an increased use of stereotypes among participants in a positive mood condition. As Esses and Zanna (1995) investigated the effects of mood states on stereotypes of various ethnic groups, the current study seeks to specifically examine the impact of induced moods on stereotyping of Hispanic individuals (who were not included in the study conducted by Esses and Zanna (1995)). The Hispanic community in the United States is consistently expanding and tends to be the target of many negative stereotypes (e.g. they are aggressive, lazy, dirty). Hispanics in America face a similar situation to that of Blacks before they became accepted and integrated into society. Therefore it is important to gain a better understanding of circumstances which might bring forth or hinder the formation of certain negative stereotypes towards Hispanics. It is hypothesized that participants induced into a positive mood should rely more heavily on the use of stereotypes when forming judgments about a Hispanic individual than participants in the negative mood condition. Further support for the existing body of literature suggesting that positive mood leads to increased use of stereotypes will be provided, given that the results of the current experiment are significant.

Method

Participants

Twenty-nine female undergraduate college students participated in this experiment for extra credit in their psychology courses.

Materials and Scoring

The materials and scoring procedures used in Experiment 2 were nearly identical to those of Experiment 1. A standard tape recorder and a blank cassette tape were used during mood induction to record each participant's statements about positive, negative, or neutral

events that had occurred in their lives. Again, the tapes were never listened to and were only used for mood induction purposes during the experiment. The PANAS was also administered to each participant in order to assess the level at which they were feeling each of the twenty emotions listed. Scoring for this questionnaire was calculated in exactly the same manner as those in Experiment 1. Self reported mood scores were computed from this scale by averaging the participants' responses for the adjectives listed. Separate means were calculated from just positive and just negative adjectives to produce a positive and a negative mood adjective score for each participant. Scores for negative adjectives were reverse coded. Low scores for negative adjectives and high scores for positive adjectives were considered indicative of effective mood induction. Neutral mood induction was effective when scores fell towards the middle of the range (around 3).

A stimulus paragraph was administered to describe an unfamiliar person, either a man or a woman of Hispanic origin, to the participant (Appendix D). The description was carefully written as not to include information which could possibly be considered biased in any way (with the exception of factors related to ethnicity). An evaluative questionnaire, identical to the one used in Experiment 1, containing fourteen trait adjectives with corresponding nine-point Likert scales was also administered in order to assess the stereotypes and valence of the participants' judgments toward the stimulus person.

The overall positive and negative valence of judgments was scored using the methods from Experiment 1. However, a second score was also calculated for stereotypes. Certain traits were selected as pertaining to common stereotypes of Hispanics (e.g. unsociable, undependable, unfriendly, hostile) (Triandis et al., 1982; Jones, 1991) and were used in creating a separate stereotype score by taking the sum the ratings of these traits. Negative

items were again reverse coded so that a reported score of 8 would result in a reverse coded score of 2. The possible range of total trait scores fell between 14 and 126, while the possible range for stereotype trait scores was 9 to 81. For this experiment, total ratings for all traits were subject to range between 24 and 73 for all participants. Total ratings for the stereotyped traits ranged between 15 and 52. Lower scores were indicative of more positive judgments, while higher scores marked more negative overall perceptions of the target individual described in the stimulus paragraph.

Procedure

Participants were randomly assigned to each of the conditions and were tested individually. All procedural methods were identical to that of Experiment 1, with the exception of the description of the target person. Following the mood induction procedure and mood evaluation questionnaire, students were then instructed to read a descriptive paragraph of an unknown Hispanic man or Hispanic woman. Participants were then instructed to complete the same trait adjective questionnaire and were given the same five-minute time limit as in Experiment 1. Debriefing followed this task and completed the students' participation in this study.

Results

Mood Manipulation

As in Experiment 1, mean scores were calculated for positive and negative mood adjective ratings across mood conditions (see Table 8). The positive rating mean was highest for participants in the positive mood condition ($M = 3.35$) and lowest in the negative mood condition ($M = 2.14$). Students in the neutral condition produced a positive rating mean falling in between those of positive and negative mood conditions ($M = 2.16$). The negative

mood condition had a larger negative mood-rating mean ($M = 1.93$) than both the neutral ($M = 1.22$) and positive mood groups ($M = 1.37$), with a somewhat higher mean rating in the positive condition. A slight trend can be detected in that the positive mood condition produced a slightly higher positive mood rating mean than the other groups, showing that participants in this condition were in fairly more positive moods. A similar trend can be identified with the negative mood rating means, in that participants in the negative mood condition reported moods that were a bit more negative compared to the other groups.

[Insert Table 8 Here]

In addition, a 3 way ANOVA was performed to assess the effects of mood condition (positive, negative, neutral) on participants' positive and negative self-rated mood scores individually (see Table 9). A significant main effect was found for mood, $F(2, 24) = 9.36$, $p = .001$. Results of the Fisher's PLSD post hoc analysis indicate that participants in the positive mood condition had higher and more positive self-ratings for positive trait adjectives than did participants in the negative ($p = 0.001$) and neutral conditions ($p = 0.001$). A similar ANOVA was conducted to determine the effects of mood on negative self-rated trait scores (see Table 10). Again, a significant effect for mood was found, $F(2, 26) = 3.34$, $p = .05$. A post hoc analysis reveals significance such that participants in the negative mood condition reported higher and more negative scores for negative trait adjectives than participants in both positive ($p = 0.05$) and neutral conditions ($p = 0.02$). These analyses reveal that mood induction was significant in producing the desired affective state among participants.

[Insert Tables 9 and 10 Here]

Table 8

*Mean Mood Adjective Scores from the Positive and Negative Affect Schedule for Positive, Negative, and Neutral Mood Conditions:
Experiment 2*

Positive Trait	Negative Trait
Score Mean	Score Mean
Positive Mood Condition	
3.35	1.37
Negative Mood Condition	
2.14	1.93
Neutral Mood Condition	
2.16	1.22

Note. Mean mood adjective scores reported are those of all participants in each mood condition.

Table 9

Analysis of Variance for the Effects of Mood Condition on Positive Mood Adjective Scores: Experiment 2

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	9.36	0.97	0.001
error	26	(0.840)		

Note. A significant difference in the scores for positive mood adjectives was found between mood conditions.

Table 10

Analysis of Variance for the Effects of Mood Condition on Negative Mood Adjective Scores: Experiment 2

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	3.34	0.58	0.05
error	26	(0.389)		

Note. A significant difference in the scores for positive mood adjectives was found between mood conditions.

Tests of Hypotheses

A 3 (mood: positive, neutral, negative) $\times$ 2 (description gender: male or female) ANOVA, as was conducted in Experiment 1, was performed to determine the effects of these variables on positive and negative trait adjective ratings of the target (see Table 11). Results indicate that no significant effects were found for mood condition, $F(2, 23) = .704, p = .51$, or description gender, $F(1, 23) = .174, p = .68$. However, there was a significant interaction effect between mood condition and gender, $F(2, 23) = 5.42, p = .01$. The analysis reveals that participants in the positive and negative mood conditions were more likely to attribute more negative judgments to males than females, while participants in the neutral mood condition were more likely to rate females more negatively across all trait adjectives.

[Insert Table 11 Here]

A separate 3 (mood: positive, neutral, negative) $\times$ 2 (description gender: male or female) ANOVA was also calculated to determine the effects of mood and description gender on the ratings of only the nine stereotype trait adjectives (see Table 12). Again, there was no significant main effect for mood, $F(2, 23) = .32, p = .73$, or description gender, $F(1, 23) = .12, p = .73$. There was a significant interaction effect, as was found in the previous analysis, for mood condition and description gender, $F(2, 23) = 4.53, p = .02$. This finding also indicates that participants in the positive and negative mood condition were more likely to judge males more negatively than females, while participants in the neutral condition were more likely to judge females more negatively than males.

[Insert Table 12 Here]

Table 11

Analysis of Variance for Mood and Gender Effects on Judgment Scores: Experiment 2

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	.704	0.15	0.50
Description (D)	1	.174	0.07	0.68
M $\times$ D	2	5.42	0.80	0.01
error	23	(201.87)		

Note. This analysis reveals no significance for the effect mood condition or description gender on the overall valence of judgments made toward the target stimulus. A significant interaction exists for the effects of mood and description gender on judgments made toward the target.

Table 12

Analysis of Variance for Mood and Gender Effects on Stereotype Judgment Scores: Experiment 2

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	.318	0.09	0.73
Description (D)	1	.118	0.06	0.73
M $\times$ D	2	4.53	0.72	0.02
error	23	(103.81)		

Note. This analysis reveals no significance for the effect mood condition or description gender on the overall valence of stereotype judgments made toward the target stimulus. A significant interaction effect exists for the effect of mood and description gender on stereotype judgments.

Additional Analyses

A correlation matrix was composed to illustrate the relationship between positive and negative self-rated mood scores and each of the trait adjectives used to judge the description of the target person (see Table 13). The correlations were calculated to determine if some adjectives were more negatively rated than others. No correlations were found among positive or negative mood scores and any of the trait adjectives.

[Insert Table 13 Here]

Discussion

Experiment 2 was conducted in order to gain a more sophisticated understanding of how the projection of stereotypes toward Hispanic individuals is influenced by induced positive, negative, and neutral moods. The Hispanic population in the United States is continuously expanding and becoming increasingly more integrated into all aspects of our society. However, often in spite of their growing numbers, Hispanic persons are susceptible to especially negative stereotypes. According to the United States Census Bureau (2002), 88.7 percent of Hispanics over 25 years of age did not graduate from high school. It was also reported that many more Hispanics are unemployed than Whites in the United States. In addition, Hispanics are twice as likely to be employed in service occupations (i.e. construction, hotel maid) than Whites (Ramirez & Cruz, 2002). These statistics provide an origin for common Hispanic stereotypes such as, lazy, underprivileged, or ignorant (Jones, 1991; Triandis et al., 1982). The research conducted in this study examined how variations in mood states might lead to an increase or decrease in the use of such negative stereotypes among Hispanics. A secondary purpose of this investigation was to provide further support

Table 13

*Correlations Among Positive and Negative Mood Rating Scores
and Trait Adjectives: Experiment 2*

Trait		
Adjective	Positive Score	Negative Score
Sociable	-0.23	0.17
Undependable	-0.18	0.25
Careful	-0.05	-0.29
Friendly	-0.19	0.06
Hostile	0.29	-0.32
Intelligent	-0.03	0.08
Dishonest	0.06	0.15
Aggressive	0.02	-0.08
Trustworthy	0.06	0.09
Forgetful	0.30	-0.06
Hard Working	0.07	-0.04
Disorganized	0.18	-0.26
Sloppy	0.23	-0.22
Competent	-0.08	0.0003

Note. No strong correlations were found to exist between positive or negative mood scores and any of the trait adjectives used to judge the target stimulus.

for previous research that has found positive moods to elicit more frequent use of stereotypes in a more general sense (Bodenhausen et al., 1994; Forgas & Fiedler, 1996).

Results of this experiment, as with Experiment 1, indicate no significant main effects for mood condition or stimulus gender, indicating that neither mood condition nor stimulus gender had an individual effect on the valence of judgments made by participants. A significant interaction effect was found between mood condition and stimulus gender, such that participants in the positive and negative mood conditions made more negative judgments towards males while more negative judgments towards females were generated by subjects in the neutral mood condition. Such findings indicate that any arousal, positive or negative in valence, led participants to judge Hispanic males more negatively on the trait adjective questionnaire. It is possible, since all of the participants were female, that their negative ratings of the male stimulus were formed as a means of making themselves appear superior to males by comparison (see Buunk & van der Laan, 2002). However, a lack of positive or negative arousal led participants in the neutral mood condition to rate the Hispanic female stimulus more negatively. The absence of arousal may not have brought about thoughts leading to upward social comparison to males, leading them to view females more negatively than males. Due to their lack of emotional stimulation, participants may not have felt a need to defend themselves against their male counterparts by projecting more positive views of females. In this case, subjects might have relied on the social role theory in which females are viewed inferior to males (see Witte & Sherman, 2002).

Findings from analyses of the main hypothesis, stating that participants in the positive mood condition would generate more negative stereotypes, also indicated no significant main effects for mood condition or stimulus gender when performed only on the nine trait

adjectives considered to convey negative stereotypes of Hispanics. However, the interaction effect between mood condition and stimulus gender was significant in that subjects in positive and negative moods judged males more negatively than females on the nine stereotyped traits. Therefore, stereotypes may have only been activated towards Hispanic men when the female participants were in a state of aroused positive or negative mood. Participants in the neutral mood condition formed more stereotypically negative judgments about the Hispanic female stimulus than the male stimulus. Again, a lack of positive or negative arousal might have activated negative stereotypes for Hispanic females but not for males.

An absence of complete support for the hypothesis may also lie in the mood manipulation, as suggested in Experiment 1, since Experiments 1 and 2 were conducted simultaneously. The samples for the two studies were different, but the mood induction procedures were identical. Again, differences in the amount of positive or negative information contained in each participant's account of past experiences might have led to variance among subjects in the degree of positive or negative arousal induced. A more controlled mood induction procedure may have minimized variance between participants in mood conditions, even though a procedure similar to the one used here had been found effective in previous research (Bodenhausen et al., 1994). A larger sample size, as well as the use of male and female participants, may also decrease differences in arousal between participants (29 participants were used in this study compared to 94 used by Bodenhausen et al., 1994).

Future attempts to test the hypothesis investigated in this experiment should take into consideration the factors mentioned above that may have brought about different results than

expected. A larger sample size should be the first change made to the study along with the addition of male participants as well as female. The greater the number of participants the lower the margin of error and the more power can be allotted to results if indeed they are found to be significant. The addition of male subjects would also allow for greater generalizability toward the larger population as opposed to only females. A different and more direct method of mood induction should be implemented in the future so as to reduce differences in the positive and negative valence of individual participants' resulting mood state. Methods such as a video recording of a scene or a written description that is positive or negative in valence provides a more controlled mood induction procedure in that every participant in each mood condition is exposed to the same mood induction stimulus. Applying these changes and additions to the methods of Experiment 2 might increase the likelihood of finding results consistent with the hypothesis that participants induced into a positive mood will more frequently generate negative stereotypes of Hispanic individuals.

Experiment 3

Experiment 3 focuses on the underlying cognitive mechanisms that function in the production of stereotypes among individuals in a positive mood. Many times, happy people use stereotypes more frequently than do people in less positive moods. Previous research has provided several explanations for the increased usage of heuristics such as stereotypes when forming judgments in a positive affective state (Bless et al., 1996; Ruder & Bless, 2003; Park & Banaji, 2000).

Research conducted by Bless et al., 1996, examined whether participants induced into a happy mood condition would rely on general knowledge structures (preexisting information about a given topic) more so than sad participants. The investigators proposed, theoretically,

that induction of a happy mood state might lead participants to feel more comfortable with using their existing general knowledge in a given situation, since it can be recalled easily and without much effort. Participants induced into a negative mood state would react in an opposing manner, and feel less secure in using their general knowledge in a similar situation. Therefore, happy participants, in using their previous knowledge, would pay less attention to the information provided to them in the current situation, while sad participants would use less subjective knowledge, using more of what is given to them (Bless et al., 1996).

Participants were first induced into either a positive or negative mood by writing about an especially happy or sad time in their life. Half of the subjects were induced into their assigned mood state before the presentation of the stimulus information while the other half received mood induction after a filler task which followed the presentation of the stimulus information. The stimulus for this experiment was a story of a restaurant scene that was intended to activate the participants' script, or general knowledge structure, for restaurants and what they entail based on their experiences. A questionnaire testing the effectiveness of the mood induction was administered which contained one question asking the participant about their current mood state that was embedded among several filler questions. Participants were to mark their answers on a bipolar scale with extremes at "very bad" and "very good". Next participants listened to an audio recording of a story about going out to dinner at a restaurant for the purpose of stimulating the subjects' script for this activity. A filler task was then administered to eliminate induced mood effects in which participants were to rate the level of similarity between geometric figures. Subjects who had not previously undergone mood induction were induced into either a positive or negative

mood after the filler task was complete so that their mood effects would be free to influence dependent measures (Bless et al., 1996).

Following either the filler task or mood induction, depending on assigned condition, participants were presented with 30 items, half that had been and half that had not been previously mentioned in the restaurant story. Items also varied in how typical they were of a restaurant script. One third of the items were very typical, such as having a waiter or waitress, one third were non-typical, such as using napkins with the restaurant name printed on them, and one third were unrelated, such as talking on the telephone. Subjects were instructed to indicate “yes” or “no” as to whether or not the items listed had been reported in the recorded story. After each item, participants were also asked to mark how confident they were in their given answer on a scale ranging from “not sure at all” to “very sure” (Bless, et al., 1996).

Results of the study conducted by Bless et al., (1996) revealed that induction of positive and negative mood states was indeed effective. Participants assigned to the happy mood condition reported being in a more positive mood than did subjects in the sad mood condition. As predicted by the researchers’ hypothesis, items that were typical of the restaurant script were more frequently judged by happy participants as having been presented in the audio recording, especially for items that had not actually been part of the story. Subjects in the negative mood condition judged fewer typical items as belonging to the story. Thus, findings support the theory that persons in a happy mood will be more confident than persons in a sad mood in using their general knowledge base when making decisions (Bless et al., 1996). Similar research has been conducted more recently, which investigated the

relationship between mood states and the ease with which certain information may be brought to mind.

Ruder and Bless (2003) conducted research on the theoretical basis that happy moods are linked to more simplified, heuristic processing strategies and sad moods lead to more developed and effortful strategies. In this case, the ease of the processing strategy comes from the use of a general processing rule rather than reliance on previous knowledge. For example if a prototype of a certain category is brought to mind with little effort (such as a Boxer is a breed of dog), there must be many other examples that also come to mind (such as Golden Retriever, Chihuahua, Beagle, etc.). The process described here is referred to as the ease of retrieval heuristic. In concordance with the proposition that happy moods lead to simplified processing, researchers hypothesized that the induction of a happy mood state would increase reliance on the ease of retrieval heuristic, while the induction of a sad mood state would increase the evaluation and use of informational content when asked to form favorable arguments of a particular circumstance (Ruder & Bless, 2003).

Participants were induced into either a positive or negative mood by writing about either a happy or sad event that had occurred in their lives. Next they completed a questionnaire similar to that which was used by Bless et al., (1996) to evaluate the effectiveness of the mood induction procedure. Embedded among other distracter items was a question asking participants to mark how they were feeling at that time on a scale ranging from *very bad* to *very good*. Following mood induction subjects were administered a task to test the ease of retrieval heuristic. The task required participants to provide either two or six arguments in favor of changing the number of school years in the German education system from 13 to 12. A questionnaire was then given which instructed subjects to answer questions

regarding how easily the arguments came to mind as well as how easy it would have been to report more arguments than required. Participants marked their answers on a scale ranging from 1 to 9, increasing in level of ease. Then they were asked to complete a survey to evaluate their attitudes toward such a change in the German education system. Subjects marked their answers on a nine-point scale ranging from “do not at all agree” to “agree completely” (Ruder & Bless, 2003).

Results of the mood manipulation assessment revealed that participants in the happy mood condition were happier than participants in the negative mood condition at the end of the induction procedure. Participants in both conditions perceived making two favorable arguments for change in the education system as easier than forming six arguments. More importantly, findings also indicate that more favorable attitudes were reported by happy participants when they were asked to form two rather than six arguments. Thus, participants relied on the ease with which arguments could be brought to mind when reporting their attitudes in that two items require less effort to retrieve than six. Participants in the sad mood condition revealed the opposite effects. When sad participants were asked to generate six arguments, their attitudes were more favorable than those who only formed two arguments. This finding suggest that sad subjects made less use of how easily the arguments were formed and relied more on the informational content of the arguments for change in the German education system. Results also suggested that, when happy participants perceived forming the arguments as an easy task, they were more in favor of such a change than if they perceived the task as difficult. Sad participants, who did not seem affected by the ease of the task, developed more positive opinions about the change when they generated six arguments (a seemingly more difficult task) than when they formed two arguments (a seemingly more

simple task). The research conducted by Ruder and Bless (2003) provides further support for theories which imply that subjects in a positive mood are more likely to refer to information that comes to mind easily and requires less effortful processing than those in a negative mood. Such information is useful in understanding situations where stereotypes may be used. Stereotypes are heuristics which come to mind easily and would therefore, in accordance with these results, be used more frequently in forming judgments about individuals belonging to frequently stereotyped groups (e.g. Hispanics).

Recent research conducted by Park and Banaji, (2000) investigated the tendency of positive and negative mood states to alter the participants sensitivity in distinguishing members of one group from another. Researchers also examined the possibility that mood may increase or decrease the threshold, or criterion, used in making judgments about group membership. Evaluating the influence of induced mood on the use of stereotypes between male African American and European American names provided a method of testing for these underlying mechanisms. Participants were induced into a positive, negative, or neutral mood by watching video clips of either comedic scenes, landscapes, or sad and disheartening scenes respectively. A questionnaire was then administered to determine the effectiveness of the mood induction procedure which asked subjects to rate the extent to which they were experiencing several mood adjectives on a scale from 1 to 9. Next they were presented with a list of forty names, half were African American and half were European American, which they were asked to identify as basketball player or non-basketball player. Participants were then given a questionnaire to evaluate the likelihood of several possible positive and negative life events. In addition, they were administered a questionnaire to test for individual differences of expertise in the area of basketball. Finally, participants were given an

alphabetically organized list of the forty names that were used in the study and were asked whether they thought each name belonged to a Black person or a White person (Park & Banaji, 2000).

Results indicated that mood induction procedures were successful in evoking the anticipated moods. Participants with high expertise in the area of basketball were more likely to correctly identify basketball players and non-basketball players for both African American names (e.g. Lamont Turpin, Kenyon Burrough, Jamal Mashburn) and European American names (e.g. Tom Chambers, Eric Griffin, Fred Murray). However, happy participants both low and high in expertise were more likely to stereotype African American names as basketball players. Results also showed happy participants to misjudge more African American rather than European American names as being basketball players in comparison with neutral and sad participants. Happy participants again showed a reduced sensitivity in discriminating between African American names and European American names as either basketball players or non-players. Participants in a negative mood were found to judge names as basketball players using stricter criterion than those in happy or neutral conditions. It was also shown that sad participants both high and low in expertise held higher criterion in judging names as basketball players. These results provide further evidence in support that happy individuals are more likely to use stereotypes in falsely identifying African American names as basketball players (Park & Banaji, 2000). The methods and procedures used in this research provide the basis for the current investigation of induced mood and the underlying cognitive mechanisms which are activated during stereotyping.

The present research attempts to replicate the findings of the experiment described above in that positive moods will decrease sensitivity and strictness of criterion used in creating social judgments. Thus, positive moods should both decrease the happy participants' abilities to distinguish "noise" (non-player) from "signal" (actual player) as well as lead to less strict criterion in judging names as players or non-players. The presence of these processing deficits should show an increased reliance on heuristics such as stereotypes for happy participants more than neutral or sad participants. Neutral and sad participants, in using more elaborate processing strategies, should use stricter criterion when forming their judgments. The current study also examines these effects on the Hispanic ethnicity through testing the participants' ability to distinguish between soccer player and non-soccer player based on name alone. As stated in Experiment 2, it is important to evaluate the formation of stereotypes of Hispanic individuals in the United States since their population in the United States continues to grow.

Method

Participants

Twenty-eight female undergraduate college students participated in this experiment. Most received extra credit in their psychology courses for participation.

Materials and Scoring

Three ten-minute video clips were used to induce participants into positive, neutral, and negative mood conditions. Episodes from the retired show, *Candid Camera* (Funt & Zimbardo, 1993) were used in the positive mood condition while a sad scene from the movie *Terms of Endearment* was used to induce negative mood (Park & Banaji, 2000). A non-

valenced video segment about the land and history of Alaska was presented to induce neutral mood.

A mood evaluation questionnaire was administered to each participant to assess their current mood state after viewing the video segment (Appendix E). The questionnaire (the same as that used by Park and Banaji, (2000)) contained fifteen mood adjectives (e.g. happy, sad, content, satisfied, disappointed). The first six adjectives specifically measured mood while the remaining nine represented emotions. Participants were instructed to indicate the extent to which the participants were feeling each adjective by circling the appropriate number on a corresponding 7-point Likert scale. Numbers on the scale ranged from 1 (*not at all, very little*) to 7 (*extremely, very much*). Only the first six adjectives on the questionnaire were scored to determine the effects of mood induction. The adjectives “sad” and “disappointed” were reverse coded. Mean scores were calculated for each participant by averaging the scores from the first six adjectives. Higher and lower scores indicated successful induction of positive and negative mood states, respectively.

A recognition questionnaire was also given to assess the basketball player stereotype for African American men (Park & Banaji, 2000) (Appendix F). The questionnaire contained a list of 40 names in random order was presented in which 10 names belonged to actual Black professional basketball players, 10 names belonged to Black non-basketball players, 10 names belonged to White basketball players, and 10 names belonged to White non-basketball players. Instructions for this questionnaire were to indicate whether each name belonged to a basketball player, by marking “B” next to the name, or a non-basketball player, by marking “N” next to the name. Scoring was done by calculating the number of

names correctly judged to belong to a basketball player (hits), and the number of names misjudged as belonging to a basketball player (false alarms).

A second questionnaire containing four items was administered to test each participant's knowledge and expertise in the field of professional basketball (Park & Banaji, 2000) (Appendix G). The questions were those pertaining to the number of hours per week that the participant spent watching professional basketball, the names of teams that had won specific championships during the past three years, knowledge of basketball rules, and overall knowledge of the sport of basketball. The questionnaire was given so each participant's knowledge level of basketball could be taken into account when analyzing the results. A point value was assigned to each question such that participants could receive high scores of two, three, and five on the first, second, and third questions respectively, so that composite scores for the first three questions ranged from 0 to 10. The fourth question, assessing participants' overall knowledge of basketball, allowed participants to answer on a scale ranging from 0 to 11. A possible score of 10 was assigned for this question. Scores from the first three questions were added to the score of the fourth question to compose a score out of twenty possible points. Each participant received an expertise score by dividing the number of points earned by the number of points possible (twenty). Participants high in basketball expertise received scores greater than or equal to 0.5 while subjects low in expertise received scores lower than 0.5.

In addition, a third survey listed the same African American and European American names, but in alphabetical order, and was used to detect stereotyping among names as either Black or White names (Park & Banaji, 2000) (Appendix H). Twenty names on the list belonged to actual Black men and the other 20 belonged to actual White men.

Instructions were to indicate on a blank next to each name whether or not the name listed belonged to a Black person, by marking “B”, or a White person, by marking “W”.

Questionnaires were scored by calculating the number of names correctly judged as belonging to a Black or White person (hits), the number of names incorrectly judged as belonging to a Black or White person (false alarms) (Park & Banaji (2000)).

Participants were also administered a series of four similar questionnaires to test for stereotyping among Hispanic names and soccer players (Appendix I). A questionnaire was given to each participant listing 20 names of actual Hispanic people and 20 names of actual White people in random order. Half of the White names belonged to professional American soccer players and half of the Hispanic names belonged to professional Argentinean soccer players. Participants were asked to mark next to each name whether or not the name belonged to a soccer player or a non-soccer player. Scores for this questionnaire were calculated by finding the number of Hispanic and White names correctly judged as soccer players (hits), and the number of names incorrectly judged as soccer players (false alarms).

A knowledge assessment questionnaire was also given to assess each participant’s knowledge about the sport of soccer (Appendix J). As in the basketball survey, the questions were those pertaining to the number of hours per week that the participant spent watching professional soccer, the names of teams that had won specific championships during the past three years, knowledge of soccer rules, and overall knowledge of the sport of soccer. The questionnaire was given to take into account each participant’s knowledge level of soccer when analyzing the results. Scoring for this survey was conducted in exactly the same manner as the basketball expertise questionnaire.

Another questionnaire, containing the same 40 names listed on the soccer player stereotyping survey, was given to the participants to assess stereotyping among Hispanic names (Appendix K). Participants were asked to judge whether each name on the alphabetically ordered lists belonged to a White person or Hispanic person. In order to score the questionnaires, the number of Hispanic names judged correctly as Hispanic (hits) and incorrectly judged to belong to a Hispanic person (false alarms). The number of names judged correctly (hits) and incorrectly (false alarms) as belonging to a White person was also recorded. The order in which questionnaires were presented was counterbalanced so that half of the participants received the Black surveys first and half received the Hispanic surveys first.

Procedure

Participants were randomly assigned to each mood condition prior to their participation. Upon arrival, all participants were greeted by the experimenter and instructed to read and sign the informed consent form. Each person was then led to individual testing room. Participants were then inducted into either a positive, neutral or negative mood state by watching a ten-minute video clip with the appropriate valence. Participants were instructed to watch the video clip and turn off the television once the clip was over to prevent any background noise and interference. Then they were told to open a packet containing seven questionnaires which were to be completed in the order they appeared.

First, all participants answered a mood manipulation questionnaire to assess the effectiveness of the mood induction procedures. Next, the subjects completed three questionnaires pertaining to African American individuals and three pertaining to Hispanic

individuals. Half of the subjects received the Black questionnaires first and half receive the Hispanic questionnaires first, so that order effect was counterbalanced between subjects.

The first African American questionnaire asked participants to choose whether each name on a list of 40 people belonged to a basketball player or non-basketball player. Subjects were asked to place a “B” next to names which they considered to belong to basketball players and “N” next to names considered to be non-basketball players. Next participants were administered a survey to test their knowledge of professional basketball. Following the knowledge assessment questionnaire, subjects were administered a survey containing an alphabetical list of the 40 names listed on the basketball player questionnaire. They were to indicate whether each name belonged to a Black person, by marking “B” next to the name, or a White person, by marking “W” next to the name.

All participants also received three questionnaires asking participants to make judgments about Hispanic names. The first Hispanic survey asked participants to judge whether each name, in a list of 40 names in random order, belonged to a soccer player or a non-soccer player. They were to mark an “S” next to each name thought to belong to a soccer player and an “N” next to each name belonging to a non-soccer player. A questionnaire was also given to determine participants’ expertise in the field of professional soccer. Lastly a survey listing the 40 names from the soccer player questionnaire in alphabetical order was administered. Participants were to asked to identify each name as belonging to a Hispanic person, by marking an “H” beside the name, or a White person, by marking a “W” beside the name.

Participants were instructed to return the packet to the investigator after the completion of all seven questionnaires. At this time, subjects were debriefed, informed of

the true nature and purpose of the experiment, and given the opportunity to ask any questions which may have arisen during their participation.

Results

Scores from six participants were omitted due to incomplete questionnaires or a misunderstanding of the instructions. Data from the remaining 24 subjects were analyzed.

Mood Manipulation

Mean scores calculated from the first six mood adjectives for each participant were averaged for each mood condition to obtain an average score for positive, negative, and neutral moods (see Table 14). The means for mood adjective scores from participants in the positive mood condition ($M = 4.86$) were the highest of any mood condition, followed by means of participants in the neutral condition ($M = 4.43$), and finally those of subjects in the negative mood condition ($M = 2.90$). The means reported here indicate that, as expected, participants in the positive mood condition rated themselves as feeling more positively than any other mood condition, while subjects in the negative mood condition reported the most negative mood states.

[Insert Table 14 Here]

A one-way ANOVA was performed to further investigate the relationship between positive, negative, and neutral mood conditions and means of self-reported mood scores. The analysis revealed a significant main effect for mood, $F(2, 21) = 7.39$, $p = .004$ (see Table 15). Analyzing the results with the Fisher's PLSD post hoc analysis reveals that participants in the positive mood condition rated themselves as in a significantly more positive mood than participants in the negative mood condition ($p = 0.002$). Subjects in the negative mood

Table 14

Mean Mood Adjective Scores for Positive, Negative, and Neutral Mood Conditions: Experiment 3

	Mood Condition		
	Positive	Neutral	Negative
Mean (<i>M</i>)	4.86	4.43	2.90

Note. Mean scores calculated from mood adjective ratings across mood conditions. Self-reported mood scores were able to range between 1 and 7.

condition rated themselves as in a significantly more negative mood than participants in the neutral mood condition ($p = 0.005$). The analyses performed on the mood manipulation data indicate that the task was indeed effective in producing the desired mood state for each assigned condition.

[Insert Table 15 Here]

Analysis of Hits and False Alarms: Black Basketball Players

Two ANOVAS tested the hypothesis predicting that positive moods will decrease the ability of participants in the positive mood condition to distinguish between basketball player (signal) and non-basketball player (noise); one for hits and one for false alarms. A one-way ANOVA examining the relationship between mood condition and the proportion of names correctly judged as Black basketball players (hits) revealed no significant main effect for mood (see Table 16). However, a trend exists between the mean proportion of hits for each mood condition (see Table 17). In agreement with the hypothesis, the mean proportion of hits for participants in the positive mood condition ($M = 0.75$) was greater than the mean proportion of hits for participants in both the neutral mood condition ($M = 0.57$) and the negative mood condition ($M = 0.53$). Such a trend indicates that more hits were made by subjects in the positive mood condition than in any other condition.

[Insert Table 16 and 17 Here]

A one-way ANOVA was performed to investigate the relationship between mood condition and the proportion of Black names that were incorrectly judged as basketball players (false alarms). Results of this analysis were not significant (see Table 18). The mean proportion of false alarms made for each mood condition (see Table 19) reveals a trend for

Table 15

Analysis of Variance for the Effects of Mood Condition on Mean Mood Adjective Scores Across Mood Conditions: Experiment 3

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	7.39	0.91	0.004
error	21	(1.08)		

Note. A significant difference in mood adjective means was found between mood conditions indicating a significant main effect for mood.

Table 16

Analysis of Variance for Mood Effects on Hits (Number of Black Names Correctly Judged as Basketball Players): Experiment 3

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	1.56	0.28	0.23
error	21	(0.06)		

Note. This analysis reveals no significant main effect for mood condition on the proportion of Black names judged correctly as basketball players.

Table 17

Mean Proportion of Hits for Names Correctly Judged as Black Basketball Players for Positive, Negative, and Neutral Mood Conditions; Experiment 3

	Mood Condition		
	Positive	Neutral	Negative
Mean (<i>M</i>)	0.75	0.57	0.52

Note. Mean proportion of names correctly judged as Black basketball players between mood conditions. Means are represented as proportions.

scores in the negative mood condition. The mean for participants in the negative mood condition ($M = 0.36$) was lower than that of participants in both the positive ($M = 0.43$) and neutral ($M = 0.46$) mood conditions. Although the means for positive and neutral mood conditions were similar, participants in the negative mood condition had fewer false alarms than participants in positive and neutral mood conditions, which is consistent with the hypothesis.

[Insert Table 18 and 19 Here]

Analysis of Hits and False Alarms: Hispanic Soccer Players

Similar analyses were also conducted to test the hypothesis that positive mood would lessen the subjects' ability to distinguish between soccer player (signal) and non-soccer player (noise); one for hits and one for false alarms. A one-way ANOVA was conducted to assess the effect of mood condition on the number of Hispanic names correctly judged as soccer players (hits). Although there was no significant main effect for mood (see Table 20), a Fisher's PLSD post hoc analysis revealed a significant difference in the mean proportion of hits between the positive and negative mood conditions ($p = 0.05$). The mean proportion of hits from participants in the positive mood condition ($M = 0.78$) is greater than the mean from both the negative ($M = 0.49$) and neutral ($M = 0.51$) mood conditions (see Table 21), however the only significant difference is between positive and negative conditions. Thus, participants in a positive mood were more likely to correctly judge Hispanic names as soccer players.

[Insert Tables 20 and 21 Here]

Table 18

*Analysis of Variance for Mood Effects on False Alarms (Number of Black Names Incorrectly Judged as Basketball Players):
Experiment 2*

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	.40	0.11	0.67
error	21	(0.06)		

Note. This analysis reveals no significant main effect for mood on the number of Black names incorrectly judged as basketball players.

Table 19

Mean Proportion of False Alarms for Names Correctly Judged as Black Basketball Players for Positive, Negative, and Neutral Mood Conditions: Experiment 3

	Mood Condition		
	Positive	Neutral	Negative
Mean (<i>M</i>)	0.43	0.46	0.36

Note. Mean proportion of names incorrectly judged as Black basketball players between mood conditions. Means are represented as proportions.

Table 20

Analysis of Variance for Mood Effects on Hits (Hispanic Names Correctly Judged as Soccer Players): Experiment 3

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	2.64	0.46	0.09
error	21	(0.07)		

Note. This analysis reveals no significant main effect for mood on the proportion of Hispanic names correctly judged as soccer players.

Table 21

Mean Proportion of False Alarms for Names Correctly Judged as Hispanic Soccer Players for Positive, Negative, and Neutral Mood Conditions: Experiment 3

	Mood Condition		
	Positive	Neutral	Negative
Mean (<i>M</i>)	0.78	0.51	0.49

Note. Mean proportion of names incorrectly judged as Hispanic soccer players between mood conditions. Means are represented as proportions.

A one-way ANOVA was also performed to determine the influence of mood condition on the number of Hispanic names incorrectly judged as soccer players (false alarms). The analysis revealed a significant main effect for mood, $F(2, 20) = 10.03$, $p = 0.001$ (see Table 22). A Fisher's PLSD post hoc test indicates that the mean proportion of false alarms for participants in the positive mood condition ($M = 0.92$) was significantly greater than the means for both the negative ($M = 0.50$) and neutral ($M = 0.50$) mood conditions (see Table 23). The hypothesis is supported by these analyses in that participants in the positive mood condition incorrectly judged more Hispanic names to be soccer players than participants in the negative and neutral mood conditions.

[Insert Tables 22 and 23 Here]

Analysis of Expertise: Basketball and Soccer

Analyses were also conducted to investigate differences in the number of hits and false alarms between high and low experts for both basketball and soccer. A one-way ANOVA was calculated to examine the relationship between the participants' basketball expertise and the proportion of Black names correctly judged as basketball players (hits) (see Table 24). No significant main effect was found for expertise, indicating that there was no significant difference between the proportion of hits for high and low basketball experts. A second one-way ANOVA was conducted to determine the relationship between level of expertise and the proportion of Black names incorrectly judged as basketball players (see Table 25). Again, there was no significant main effect for expertise. The proportion of false alarms made by both high and low experts did not differ significantly.

[Insert Tables 24 and 25 Here]

Table 22

Analysis of Variance for Mood Effects on False Alarms (Hispanics Misjudged as Soccer Players): Experiment 3

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	10.03	0.98	0.001
error	20	(0.03)		

Note. This analysis reveals a significant main effect for mood on the mean proportion of false alarms between mood conditions.

Table 23

Mean proportion of False Alarms for Names Incorrectly Judged as Hispanic Soccer Players for Positive, Negative, and Neutral Mood Conditions: Experiment 3

	Mood Condition		
	Positive	Neutral	Negative
Mean (<i>M</i>)	0.92	0.50	0.50

Note. Mean proportion of names incorrectly judged as Hispanic soccer players between mood conditions. Means are represented as proportions

Table 24

Analysis of Variance for Expertise Effects on Hits (Blacks Judged Correctly as Basketball Players): Experiment 3

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	1	0.05	0.06	0.83
error	22	(0.07)		

Note. This analysis reveals no significant main effect for the level of basketball expertise on the mean proportion of hits alarms between mood conditions.

Table 25

Analysis of Variance for Expertise Effects on False Alarms (Blacks Misjudged as Basketball Players): Experiment 3

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	1	2.41	0.30	0.14
error	22	(0.09)		

Note. This analysis reveals no significant main effect for the level of basketball expertise on the mean proportion of false alarms between mood conditions.

Likewise, two one-way ANOVAs were performed to examine the relationship between soccer expertise and the proportion of Hispanic names judged correctly and incorrectly as soccer players was also examined. Neither the ANOVA for hits (see Table 26) nor the ANOVA for false alarms (see Table 27) was significant. Thus, the participants' level of expertise did not have a significant effect on the proportion of hits or false alarms.

[Insert Tables 26 and 27 Here]

Analysis of Hits and False Alarms: Black and White Names

Further analyses were performed to investigate the number of names correctly (hits) and incorrectly (false alarms) judged as belonging to Black and White individuals between mood conditions. A one-way ANOVA was performed to examine the relationship between mood and the proportion of names correctly judged as Black (hits); (see Table 28). The analysis revealed a significant main effect for mood on the proportion of hits, $F(2, 21) = 4.08, p = 0.03$. Results of a Fisher's PLSD post hoc test indicated that significantly more hits were made by participants in the positive mood condition than in the neutral mood condition. The mean number of hits across mood conditions also reveals that the most hits were made by subjects in the positive mood condition ($M = 0.92$), followed by participants in the negative ($M = 0.83$) and neutral ($M = 0.77$) mood conditions (see Table 29). Thus, these findings indicate that participants in a positive mood were more likely to correctly judge names as belonging to Black individuals than those in a neutral mood.

[Insert Tables 28 and 29 Here]

The effect of mood condition on the proportion of names incorrectly judged as Black (false alarms) was also analyzed using a one-way ANOVA. A significant main effect for mood was found, $F = 6.10, p = 0.005$ (see Table 30). Fisher's PLSD reveals that the mean

Table 26

*Analysis of Variance for Expertise Effects on Hits (Hispanics
Judged Correctly as Soccer Players): Experiment 3*

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	0.45	0.10	0.45
error	22	(0.08)		

Note. This analysis reveals no significant main effect for the level of soccer expertise on the mean proportion of hits between mood conditions.

Table 27

Analysis of Variance for Expertise Effects on False Alarms (Hispanics Misjudged as Soccer Players): Experiment 3

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	0.81	0.13	0.38
error	22	(0.08)		

Note. This analysis reveals no significant main effect for the level of soccer expertise on the mean proportion of false alarms between mood conditions.

Table 28

Analysis of Variance for Mood Effects on Hits (Names Correctly Judged as Black): Experiment 3

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	4.08	0.66	0.03
error	21	(0.01)		

Note. This analysis reveals a significant main effect for mood condition on the mean proportion of names correctly judged as Black between mood conditions.

Table 29

*Mean Proportion of Hits for Names Correctly Judged
as Black for Positive, Negative, and Neutral
Mood Conditions: Experiment 3*

	Mood Condition		
	Positive	Neutral	Negative
Mean (<i>M</i>)	0.92	0.77	0.83

Note. Mean proportion of names correctly judged as Black between mood conditions. Means are represented as proportions.

proportion of false alarms for participants in the neutral ($M = 0.24$) and negative ($M = 0.17$) mood conditions were significantly greater than that of the positive mood condition ($M = 0.06$) (see Table 31). The results indicate that participants in the neutral mood condition incorrectly judged more names as Black, than participants in the negative and positive mood conditions respectively.

[Insert Tables 30 and 31 Here]

Analyses were also conducted to examine the relationship between mood and the number of names judged correctly and incorrectly as belonging to a White as opposed to a Black individual. The results of a one-way ANOVA revealed no significant main effect for mood (see Table 32). The mean proportion of hits for each mood condition reveals very little difference between positive ($M = 0.85$), negative ($M = 0.80$), and neutral ($M = 0.87$) mood conditions (see Table 33). Participants across mood conditions correctly judged names as white with nearly the same frequency.

[Insert Tables 32 and 33 Here]

A one-way ANOVA was also performed to examine the relationship between mood condition and the proportion of names incorrectly judged White (false alarms) as opposed to Black. Again, there was no significant main effect for mood (see Table 34). There was also very little difference mean number of false alarms between participants in positive ($M = 0.15$), neutral ($M = 0.20$), and negative ($M = 0.14$) (see Table 35). These results indicate that the number of names incorrectly judged as white did not differ greatly across conditions.

[Insert Tables 34 and 35 Here]

Table 30

*Analysis of Variance for Mood Effects on False Alarms
(Names Incorrectly Judged as Black): Experiment 3*

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	6.10	0.90	0.005
error	21	(0.01)		

Note. This analysis reveals a significant main effect for mood condition on the mean proportion of names incorrectly judged as Black between mood conditions.

Table 31

*Mean Proportion of False Alarms for Names Incorrectly Judged
as Black for Positive, Negative, and Neutral
Mood Conditions: Experiment 3*

	Mood Condition		
	Positive	Neutral	Negative
Mean (<i>M</i>)	0.06	0.24	0.17

Note. Mean proportion of names incorrectly judged as Black between mood conditions. Means are represented as proportions.

Table 32

Analysis of Variance for Mood Effects on Hits (Names Correctly Judged as White – opposed to Black): Experiment 3

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	0.97	0.19	0.39
error	21	(0.01)		

Note. This analysis reveals no significant main effect for mood condition on the mean proportion of names correctly judged as White between mood conditions.

Table 33

Mean proportion of Hits for Names Correctly Judged as White (opposed to Black) for Positive, Negative, and Neutral Mood Conditions: Experiment 3

	Mood Condition		
	Positive	Neutral	Negative
Mean (<i>M</i>)	0.85	0.80	0.86

Note. Mean proportion of names correctly judged as White between mood conditions. Means are represented as proportions.

Table 34

Analysis of Variance for Mood Effects on False Alarms (Names Incorrectly Judged as White – opposed to Black): Experiment 3

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	0.97	0.19	0.39
error	21	(0.01)		

Note. This analysis reveals no significant main effect for mood condition on the mean proportion of names incorrectly judged as White between mood conditions.

Table 35

Mean Proportion of False Alarms for Names Incorrectly Judged as White (opposed to Black) for Positive, Negative, and Neutral Mood Conditions: Experiment 3

	Mood Condition		
	Positive	Neutral	Negative
Mean (<i>M</i>)	0.15	0.20	0.14

Note. Mean proportion of names incorrectly judged as White between mood conditions. Means are represented as proportions.

Analysis of Hits and False Alarms: Hispanic and White Names

A similar set of analyses were performed to determine the relationship between mood condition and the proportion of names correctly (hits) or incorrectly (false alarms) judged as belonging to Hispanic individuals. The findings of a one-way ANOVA revealed a significant main effect for mood on the proportion of hits, $F(2, 21) = 6.68, p = 0.006$ (see Table 36). Fisher's PLSD post hoc analysis indicated that the mean proportion of hits in the positive ($M = 0.98$) and negative ($M = 0.96$) mood conditions were significantly greater than the mean from the neutral condition ($M = 0.84$) (see Table 37). Participants in the positive and negative mood conditions correctly judged more names as Hispanic than did participants in the neutral condition.

[Insert Tables 36 and 37 Here]

The effects of mood condition on the proportion of names incorrectly judged as Hispanic (false alarms) was examined by conducting a one-way ANOVA. The analysis indicated a significant main effect for mood, $F(2, 21) = 6.45, p = 0.006$ (see Table 38). The results of Fisher's PLSD revealed that the mean proportion of false alarms for participants in the neutral condition ($M = 0.16$) was significantly greater than those of both the positive ($M = 0.03$) and negative ($M = 0.04$) mood conditions (see Table 39). Thus, participants in the neutral mood condition were more likely to incorrectly judge names as belonging to Hispanic individuals than were participants in the positive and negative mood conditions.

[Insert Tables 38 and 39 Here]

Two one-way ANOVAs were also performed to explore the effects of mood on the proportion of names correctly (hits) and incorrectly (false alarms) judged as belonging to a White individual as opposed to a Hispanic individual. Neither the analysis for hits (see Table

Table 36

*Analysis of Variance for Mood Effects on Hits (Names
Correctly Judged as Hispanic: Experiment 3)*

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	6.68	0.88	0.006
error	21	(0.01)		

Note. This analysis reveals a significant main effect for mood condition on the mean proportion of names correctly judged as Hispanic between mood conditions.

Table 37

*Mean Proportion of Hits for Names Correctly Judged
as Hispanic for Positive, Negative, and Neutral
Mood Conditions: Experiment 3*

	Mood Condition		
	Positive	Neutral	Negative
Mean (<i>M</i>)	0.98	0.84	0.96

Note. Mean proportion of names correctly judged as Hispanic between mood conditions. Means are represented as proportions.

Table 38

Analysis of Variance for Mood Effects on False Alarms (Names Incorrectly Judged as Hispanic: Experiment 3)

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	6.64	0.88	0.006
error	21	(0.01)		

Note. This analysis reveals a significant main effect for mood condition on the mean proportion of names incorrectly judged as Hispanic between mood conditions.

Table 39

*Mean Proportion of False Alarms for Names Incorrectly Judged
as Hispanic for Positive, Negative, and Neutral
Mood Conditions: Experiment 3*

	Mood Condition		
	Positive	Neutral	Negative
Mean (<i>M</i>)	0.03	0.16	0.04

Note. Mean proportion of names incorrectly judged as Hispanic between mood conditions. Means are represented as proportions.

40) nor false alarms (see Table 41) revealed a significant effect for mood. The mean proportion of names correctly judged as white was very similar between positive ($M = 0.97$), negative ($M = 0.90$), and neutral ($M = 0.92$) mood conditions (see Table 42). The means for false alarms indicate a trend in that more names were incorrectly judged as White by participants in the negative mood condition ($M = 0.10$), followed by those in the neutral ($M = 0.09$) and positive ($M = 0.03$) mood conditions respectively (see Table 43). Thus, mood condition did not have a significant effect on the proportion of names judged correctly (hits) or incorrectly (false alarms) as White.

[Insert Tables 40, 41, 42, and 43 Here]

Discussion

The results of Experiment 3 do not directly support those of Park and Banaji (2000) with significant main effects. However, trends presented in the analyses (see Tables 17 and 19) reveal that positive mood did hinder the participants' ability to distinguish between basketball player and non-basketball player more than negative mood. The proportion of Black names incorrectly identified as basketball players (false alarms) was greater for participants in the positive mood condition than in the negative mood condition. Positive mood, as found in Park and Banaji (2000), decreased the subjects' ability to discriminate between signal (actual Black basketball players) and noise (Black non-basketball players). In the present study, trends also indicated that the proportion of Blacks correctly judged as basketball players (hits) was greatest in the positive and lowest in the negative mood condition (see Table 17). Taking into account that there was no difference in the proportion of hits or false alarms between high and low basketball experts, it can be inferred that the participants did not know which names were and which were not basketball players. Thus, in

Table 40

*Analysis of Variance for Mood Effects on Hits (Names
Correctly Judged as White –opposed to Hispanic: Experiment 3*

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	0.78	0.20	0.47
error	21	(0.01)		

Note. This analysis reveals no significant main effect for mood condition on the mean proportion of names correctly judged as White between mood conditions.

Table 41

*Analysis of Variance for Mood Effects on False Alarms (Names
Incorrectly Judged as White –opposed to Hispanic: Experiment 3*

Source	<i>df</i>	<i>F</i>	η	<i>p</i>
Between Subjects				
Mood (M)	2	0.78	0.20	0.47
error	21	(0.01)		

Note. This analysis reveals no significant main effect for mood condition on the mean proportion of names incorrectly judged as White between mood conditions.

Table 42

*Mean Proportion of Hits for Names Correctly Judged
as White (as opposed to Hispanic) for Positive, Negative,
and Neutral Mood Conditions: Experiment 3*

	Mood Condition		
	Positive	Neutral	Negative
Mean (<i>M</i>)	0.97	0.92	0.90

Note. Mean proportion of names correctly judged as White between mood conditions. Means are represented as proportions.

Table 43

Mean Proportion of False Alarms for Names Incorrectly Judged as White (as opposed to Hispanic) for Positive, Negative, and Neutral Mood Conditions: Experiment 3

	Mood Condition		
	Positive	Neutral	Negative
Mean (<i>M</i>)	0.03	0.09	0.10

Note. Mean proportion of names incorrectly judged as White between mood conditions. Means are represented as proportions.

theory, hits could also count as false alarms, since participants were not certain which names were those of actual players and which were not. Therefore, larger proportion of hits and false alarms made by participants in the positive mood condition may have been elicited through stereotypically associating Blacks with the sport of Basketball.

The analysis for the proportion of hits for names correctly judged as belonging to a Black individual did reveal a significant main effect. The proportion of hits was greatest in the positive mood condition. Blacks are thus often stereotyped as having Black names (e.g. Jamal, Tyrone) and the results of this experiment indicate that positive mood increased the ability of participants to identify such names as belonging to a Black person. Likewise, the proportion of White names judged as Black (false alarms) was lowest in the positive mood condition, suggesting that these participants relied on the stereotype of Black names when judging names as belonging to a Black or White person. It is also interesting to note that, across mood conditions, participants were almost equally likely to correctly judge a White name as belonging to a White person. Far more names were correctly judged (hits) rather than incorrectly judged (false alarms) as White which indicates that participants in all mood conditions easily recognized White names as belonging to White individuals.

The same methods used by Park and Banaji (2000) were also used in Experiment 3 to examine the ability of participants across mood conditions to distinguish soccer player (signal) from non-soccer player (noise) among Hispanic and White names. Both significant main effects and trends were found to support the hypothesis that positive mood would decrease ability to differentiate between actual and non-soccer players. Trends from the mean proportion of hits reveal that subjects in the positive mood condition were much more likely than those in the negative mood condition to correctly judge (hits) Hispanic names as

soccer players (see Table 20). Participants in the positive mood condition also judged more Hispanic names incorrectly (false alarms) as soccer players than did participants in the neutral and negative conditions (see Table 21). Again, the level of soccer expertise among participants had no effect on either hits or false alarms, suggesting that positive mood led participants to rely on the stereotype associating Hispanics with the sport of soccer.

Analyses of the number of names correctly (hits) and incorrectly (false alarms) judged as belonging to a Hispanic individual both revealed significant main effects. Participants in both the positive and negative mood conditions made significantly more hits than did those in the neutral mood condition. Such results suggest that any positive or negative arousal led participants to correctly identify names as Hispanic more frequently than when there was no arousal of mood. However, the greatest number of false alarms was found in the neutral condition, indicating that participants in this condition were more likely to falsely identify White names as Hispanic. Hispanic names (e.g. Juan, Alberto, Sancho) as with Black names, are commonly stereotyped as belonging to Hispanic persons. Therefore, it appears that positive and negative arousal of mood states bring about reliance on such stereotypes in determining whether a given name belongs to a Hispanic or White individual. There were no significant differences between mood conditions in the number of names correctly or incorrectly judged as White. Participants in positive, negative, and neutral moods made nearly the same amount of hits and false alarms. Subjects across mood conditions did not seem to have trouble correctly identifying the names of White individuals. Such findings might be due to the fact that the majority of participants were White and were therefore familiar with names which are considered White.

Although not all of the analyses produced significant effects, the combination of significant main effects and trends are supportive of the hypothesis that positive mood would lead to a decrease in ability to distinguish between signal and noise (false alarms). Thus, participants in the positive mood condition showed an increased reliance on stereotypes when judging Black and Hispanic names as basketball and soccer players. Similar to the results found by Bless et al., (1996), happy participants in the current experiment may have chosen to rely on their general knowledge, stereotypes in particular, when asked to judge Blacks and Hispanics as basketball or soccer players. It may be that the participants' general knowledge of basketball players included an association with Black individuals whereas their knowledge of soccer players might have included a connection with the Hispanic ethnicity.

The findings from research conducted by Ruder and Bless, (2003) also provide a plausible explanation for the results of the current experiment. Based on the ease of retrieval heuristic, their research found that happy participants were more likely to make use of information that came to mind easily rather than information that required more effortful processing. Stereotypes, being a type of heuristic, are a form of information that comes to mind with relative ease. Thus, when participants in a positive mood, in Experiment 3, were instructed to mark whether a name belonged to a basketball player or a soccer player, they may have relied on stereotypes of Blacks as basketball players and Hispanics as soccer players. Reliance on such stereotypes, due to the ease in which they are brought to mind, might have led to the increased proportion of hits and, more importantly, false alarms for Black and Hispanic names judged as basketball and soccer players among participants in the positive as opposed to the negative mood condition.

Results from the present research, although not all were statistically significant, are still partially in concordance with those found by Park and Banaji, (2000). Two important differences in the methods of these experiments may attribute to the variation in results. First, Park and Banaji tested 90 participants in their experiment while the current study only used 24. Second, the previous research used both male and female participants while this experiment used only females. Increasing the sample size and including male as well as female participants in future attempts at this research might account for some of the differences in results, possibly leading to more significant main effects. Future person perception research, implementing these changes to the methodology, is important in providing support for the theory that positive mood leads to a decreased cognitive processing and a greater reliance on stereotypes.

General Discussion

Three experiments investigated how induced mood states affect mood congruency and the use of stereotypes in making social judgments, as well as cognitive factors (such as the ability to distinguish between signal and noise) which elicit the use of stereotypes. A variety of significant and non-significant results were obtained and will be summarized briefly. The theoretical and practical implications of each study, as well as suggestions for future research, will be discussed.

The hypothesis tested in Experiment 1, that induced mood states would elicit mood congruent judgments, was not supported by a significant main effect. Mood did not alter the valence of participants' judgments toward the unfamiliar target stimulus provided. While the mood induction procedure was successful, the results of this study did not support those of other experiments which have examined the mood congruency effect (Meyer et al., 1992;

Forgas & Bower, 1987; Innes-Kerr & Niedenthal, 2002). Implementing procedural changes such as, a larger sample size, the use of male participants, and a more controlled method of mood induction, might elicit significant results in future studies of mood congruency. However, if similar non-significant effects were still found, it could be inferred that participants are aware of the fact that they are making judgments about another individual which the experimenter will later examine. Even when confidentiality is assured, participants may consciously alter their perceptions and avoid using negative stereotypes so as to present themselves in the best possible light. Thus, the valence of the subjects' judgments would not be expected to differ greatly across mood conditions since all subjects may not reveal their true feelings with the knowledge that someone else will view their responses.

The participant's active altering of their feelings toward a particular target might also indicate that they are masking their true perception of the individual, which could be detrimental in some situations. For example, when a team of employers asks each person to report their impression of a prospective employee, each person may think about what the group, as a whole, would like to hear when speaking about their opinion of the target individual.

Conversely, if future investigations find the mood congruency effect to be present when the suggested methodological changes are made, further support would be provided for the possible effects of mood on social judgments. Results consistent with the mood congruency theory, as found in previous research, would indicate that positive and negative moods lead participants to form more positive or negative social judgments, respectively. Knowledge of such information would be important in many instances. A judge or jury

member in a good mood might be more likely to form a better impression of an alleged offender and might possibly drop or reduce the charges based on the defendant's testimony. However, the same judge or jury member in a bad mood might perceive the offender more negatively and stick with the original charges as well as possibly impose a more severe sentence. Thus, in certain situations, it would be helpful to know if the effects of mood play a role in determining the valence of social judgments. If a person making a social judgment knows that their mood will affect the outcome in a certain way, they might take their emotional state into consideration before finalizing their perception of a target.

Since mood may influence the positive or negative valence of an individual's perception of others, it is likely that they might also affect the use of negative stereotypes when judging members of certain groups (e.g. Hispanic, African American, Asian). Experiment 2 was designed to determine the effects of induced mood on the use of negative stereotypes. Based on the findings of previous research (Bodenhausen et al., 1994; Forgas & Fiedler, 1996), the second experiment tested the hypothesis that positive moods would elicit more negative stereotypes of an unfamiliar Hispanic target.

The absence of a significant main effect for mood on the use of negative stereotypes in this study may also be due to methods used in the procedure, as suggested for Experiment 1. The larger sample size and use of male participants in prior research may have contributed to the findings of a significant main effect. Also, participants in the current research might not have had a strong stereotype of Hispanic individuals from which to draw upon during testing. It may be that the particular sample of participants used in this experiment did not hold negative stereotypes of the Hispanic population. Therefore, induced mood could not have had an effect on the participants' reliance on stereotypes if they did not exist. If

participants did indeed hold negative stereotypes of Hispanics, it might also be the case that they were actively attempting to restrain from portraying them. Even though each participant was informed of the experiment's strict confidentiality, the knowledge that the experimenter would be scoring their questionnaires might have caused them to withhold their true feeling towards the target at the time of testing.

If results of the present experiment had revealed a significant effect for mood (positive mood in particular) on the use of negative stereotypes, further support for previous research would have been provided. It would benefit Hispanics to know if individuals were more likely to rely on negative stereotypes of their ethnicity (e.g. aggressive, lazy, unclean) depending on their mood. For example, if a Hispanic person is applying for a high powered job that requires a large amount of responsibility and dependableness, it might be to the applicant's benefit if the employer were not in a particularly happy mood when reviewing the application. Although the mood congruency theory posits that positive moods lead to more positive judgments, positive moods have been associated with a greater reliance on stereotypes. Therefore, the happy employer might rely on stereotypes as a way of weeding out certain applicants from a stack of many when choosing the appropriate employee. Although the applicant would have no control over the employer's mood, the employer might attempt to correct for reliance on stereotypes if they had knowledge of such research. Therefore, it is important to study stereotypes as well as the conditions which elicit their use.

Experiment 3 was conducted to further explore the use of stereotypes in varying mood conditions as well as cognitive dilemmas which may lead to their use. The hypothesis stating that positive mood would lead to a decreased ability to distinguish between signal (basketball player or soccer player) and noise (non-basketball player or non-soccer player)

among Black and Hispanic names, and thus produce and increased reliance on stereotypes, was tested in this research. It was expected that results would replicate those of Park and Banaji, (2000) which supported this hypothesis, however, not all findings of the present study were supportive.

The study by Park and Banaji, (2000) was chosen to be replicated and expanded upon for its assessment of cognitive underpinnings related to the use of stereotypes as well as for the use of a more controlled mood induction method. The use of video clips provides a more reliable procedure for inducing positive, negative, and neutral mood ensures that all participants in each condition will receive the same stimuli, with the exact same valence, and for equal lengths of time. The overall finding that participants in the positive mood condition used stereotypes of Blacks and Hispanics as basketball and soccer players more frequently than the other mood conditions might have been caused by a decreased ability to differentiate between signal and noise. Thus, as participants in the positive mood condition had difficulty determining whether or not the names listed belonged to a basketball player/non-player or soccer player/non-player from the information provided, they chose to rely on stereotypes of Blacks and Hispanics. The stereotypes used in forming their judgments were those implying that basketball is associated with Blacks and soccer is associated with Hispanics.

The findings of Experiment 3 provide a possible explanation for the reliance on stereotypes which goes beyond the effects of positive mood alone. Here it is suggested that it is a person's decreased ability to distinguish between groups while in a positive mood which leads to a greater use of stereotypes. If two employees, a Black man and a White man, are suspected of stealing money from the cash drawer, the person who has to choose the culprit based on appearance alone, might rely on stereotypes to aid them in their judgment. If the

informant is in a positive mood, possibly due to the excitement that they have taken suspects into custody, he might be more likely to use stereotypes and choose the Black man (stereotypically associated with crime) as the offender.

Following from Experiment 2, Hispanics were added in Experiment 3 in order to determine if the findings from Park and Banaji, (2000) could be applied to the Hispanic population in the United States. As the Hispanic community continues to grow, it becomes more necessary and important to research the ethnic stereotypes which they are associated with. The study of Hispanics was also chosen because the present body of literature encompassing the stereotyping of ethnic groups in America is largely focused on Blacks (see Sigelman & Tuch, 1997; Abreu, 1999). Since the Hispanic population is expanding at a rapid rate, it is just as important to examine its common stereotypes as it is to investigate those of Blacks.

Future research on stereotyping should make an effort to further the study of the Hispanic ethnicity, as well as other growing minorities (e.g. Asians), and broaden the available pool of literature. When continuations of the present experiments are conducted, important changes to the procedure should be made. Largely increasing the number of participants as well as including both male and female subjects will be likely to raise the generalizability of significant results. Also, the use of a controlled method of mood induction, such as valenced videotapes, will allow for a greater success and consistency in inducing the desired affective state. Such improvements should increase the chances of obtaining significant results.

The inclusion of a neutral mood condition is also important for future investigations of mood effects on person perception and stereotyping. Although some previous studies

have only compared findings from the positive and negative conditions (e.g. Bless et al., 1996; Forgas, 1989; Ruder & Bless, 2003), they do not provide a neutral control condition for comparison. The addition of the neutral mood condition, as used in the current research, also allows for analysis of general arousal effects. A general arousal effect might include significant effects in both positive and negative mood conditions, but not for the neutral condition. Thus, the effects of induced positive and negative moods can be compared with one another, as well as with the lack of mood valence in the neutral, control condition.

Experiments investigating the effects of mood on the valence and use of stereotypes in social judgments should continue to be conducted in the future of psychological research. Social interactions in which judgments are made are constantly taking place and may or may not be subject to stereotypes. It is also the case that the moods of those forming in social judgments and perceptions of individuals continue to change on a relatively frequent basis. Therefore, it is useful to investigate and gain a more elaborate understanding of the effects which mood might have on the outcome of such frequent judgments.

Works Cited

- Abreu, J. M. (1999). Conscious and nonconscious African American stereotypes: Impact on first impression and diagnostic ratings by therapists. *Journal of Consulting & Clinical Psychology, 67*(3), 387-393.
- Beatty, J. (1979). Sex, role, and sex role. *Annals of the New York Academy of Sciences, 327*, 43-49.
- Bless, H., Schwarz, N., Clore, G. L., Golisano, V., Rabe, C., & Wölk, M. (1996). Mood and the use of scripts: Does a happy mood really lead to mindlessness? *Journal of Personality and Social Psychology, 71*(4), 665-679.
- Bodenhausen, G. V., Kramer, G. P., & Süsser, K. (1994). Happiness and stereotypic thinking in social judgment. *Journal of Personality and Social Psychology, 66*(4), 621-632.
- Buunk, B. P. & van der Laan, V. (2002). Do women need female role models? Subjective social status and the effects of same-sex and opposite sex comparisons. *Revue Internationale de Psychologie Sociale, 15*(3-4), 129-155.
- Ciarrochi, J. V., & Forgas, J. P. (1999). On being tense yet tolerant: The paradoxical effects of trait anxiety and aversive mood on intergroup judgments. *Group Dynamics: Theory, Research and Practice, 3*(3), 227-238.
- DiGirolamo, G. J., & Hintzman, D. L. (1997). First impressions are lasting impressions: A primacy effect in memory for repetitions. *Psychonomic Bulletin & Review, 4*(1), 121-124.
- Dougherty, T. W., Turban, D. B., & Callender, J. C. (1994). Confirming first impressions in the employment interview: A field study of interviewer behavior. *Journal of Applied Psychology, 79*(5), 659-665.

- Esses, V. M., & Zanna, M. P. (1995). Mood and the expression of ethnic stereotypes. *Journal of Personality and Social Psychology*, 69(6), 1052-1068.
- Forgas, J. P. (1995). Mood and judgment: The affect infusion model (AIM). *Psychological Bulletin*, 117(1), 39-66.
- Forgas, J. P., & Bower, G. H. (1987). Mood effects on person-perception judgments. *Journal of Personality and Social Psychology*, 53(1), 53-60.
- Forgas, J. P. & Fiedler, K. (1996). Us and them: Mood effects on intergroup discrimination. *Journal of Personality and Social Psychology*, 70(1), 28-40.
- Gendolla, E. (2000). On the impact of mood on behavior: An integrative theory and a review. *Review of General Psychology*, 4(4), 378-408.
- Innes-Ker, A., & Niedenthal, P. M. (2002). Emotion concepts and emotional states in social judgment and categorization. *Journal of Personality and Social Psychology*, 83(4), 804-816.
- Jones, M. (1991). Stereotyping Hispanics and Whites: Perceived differences in social roles as a determinant of ethnic stereotypes. *The Journal of Social Psychology*, 131(4), 469-476.
- Mayer, J. D. & Gaschke, Y. N. (1988). The experience and meta-experience of mood. *Journal of Personality and Social Psychology*, 55, 102-111.
- Meyer, J. D., Gaschke, Y. N., Braverman, D. L., & Evans, T. W. (1992). Mood-congruent judgment is a general effect. *Journal of Personality and Social Psychology*, 63(1), 119-132.
- Oaksford, M., Grainger, B., Morris, F., & Williams, J. M. (1996). Mood, reasoning, and central executive processes. *Journal of Experimental Psychology*, 22(2), 476-492.

- Park, J., & Banaji, M. R. (2000). Mood and heuristics: The influence of happy and sad states on sensitivity and bias in stereotyping. *Journal of Personality and Social Psychology*, 78(6), 1005-1023.
- Ramirez, R. R. & de la Cruz, P. (2002). The Hispanic population in the United States. In *Current Population Reports* (pp. 20-545). Washington, DC: United States Census Bureau.
- Ruder, M., & Bless, H. (2003). Mood and the reliance on the ease of retrieval heuristic. *Journal of Personality and Social Psychology*, 85(1), 20-32.
- Schwarz, N. (2002). Feelings as information: Moods influence judgments and processing strategies. In G. Thomas & D. Griffin (Eds.), *Heuristics and biases: The psychology of intuitive judgment* (pp. 534-547). New York, NY: Cambridge University Press.
- Sigelman, L., & Tuch, S. A. (1997). Metastereotypes: Blacks' perceptions of Whites' stereotypes of Blacks. *Public Opinion Quarterly*, 61(1), 87-101.
- Tajfel, H. (1970). Experiments in intergroup discrimination. *Scientific American*, 223, 96-102.
- Triandis, H.C., Liasansky, J., Setiadi, B., Chang, B., Marin, G., & Betancourt, H. (1982). Stereotyping among Hispanics and Anglos. *Journal of Cross Cultural Psychology*, 13(4), 409-426.
- Velten, E. (1968). A laboratory task for induction of mood states. *Behavior Research and Therapy*, 6, 473-482.
- Watson, D., Clark, L. A., & Tellegen, A. (1998). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality & Social Psychology*, 54(6), 1063-1070.

Witte, T. H., & Sherman, M. F. (2002). Silencing the self and feminist identity development.
Psychological Reports, 90(3, Pt. 2), 1075-1083.

Appendix A

The Positive And Negative Affective Schedule (PANAS) Mood Evaluation Questionnaire

Please indicate, using the scale below, the extent to which you are **currently** feeling each of the following emotions. Your responses will not be identified with your name in any way and will be kept confidential.

1	2	3	4	5
very slightly or not at all	a little	moderately	quite a bit	extremely

_____ interested	_____ irritable
_____ distressed	_____ alert
_____ excited	_____ ashamed
_____ upset	_____ inspired
_____ strong	_____ nervous
_____ guilty	_____ determined
_____ scared	_____ attentive
_____ hostile	_____ jittery
_____ enthusiastic	_____ active
_____ proud	_____ afraid

Appendix B

Stimulus Descriptions for Experiment 1

Description 1 (man):

Jamie is a middle-aged man. He has two siblings, a brother and a sister. Reading and watching movies are some of the things Jaime likes to do in his free time. When Jamie wakes up in the morning he performs his daily hygiene routine and eats breakfast. If he has time after he eats, he likes to read the newspaper. He leaves the house in the morning and goes to work. Jaime eats lunch some time in the middle of the day. After work he comes home and eats dinner. Sometimes he eats at home and sometimes he goes out to eat. After dinner he gets the mail and reads it. Before Jaime goes to bed, he brushes his teeth and usually watches TV or reads.

Description 2 (woman):

Jamie is a middle-aged woman. She has two siblings, a brother and a sister. Reading and watching movies are some of the things Jaime likes to do in her free time. When Jamie wakes up in the morning she performs her daily hygiene routine and eats breakfast. If she has time after she eats, she likes to read the newspaper. She leaves the house in the morning and goes to work. Jaime eats lunch some time in the middle of the day. After work she comes home and eats dinner. Sometimes she eats at home and sometimes she goes out to eat. After dinner she gets the mail and reads it. Before Jaime goes to bed, she brushes her teeth and usually watches TV or reads.

Appendix C

Trait Adjective Questionnaire

Very True	Sociable									Not at all True
	1	2	3	4	5	6	7	8	9	
Very True	Undependable									Not at all True
	1	2	3	4	5	6	7	8	9	
Very True	Careful									Not at all True
	1	2	3	4	5	6	7	8	9	
Very True	Friendly									Not at all True
	1	2	3	4	5	6	7	8	9	
Very True	Hostile									Not at all True
	1	2	3	4	5	6	7	8	9	
Very True	Intelligent									Not at all True
	1	2	3	4	5	6	7	8	9	
Very True	Dishonest									Not at all True
	1	2	3	4	5	6	7	8	9	
Very True	Aggressive									Not at all True
	1	2	3	4	5	6	7	8	9	
Very True	Trustworthy									Not at all True
	1	2	3	4	5	6	7	8	9	
Very True	Forgetful									Not at all True
	1	2	3	4	5	6	7	8	9	
Very True	Hard Working									Not at all True
	1	2	3	4	5	6	7	8	9	
Very True	Disorganized									Not at all True
	1	2	3	4	5	6	7	8	9	
Very True	Sloppy									Not at all True
	1	2	3	4	5	6	7	8	9	
Very True	Competent									Not at all True
	1	2	3	4	5	6	7	8	9	

Appendix D

Stimulus Descriptions for Experiment 2

Description 1 (Hispanic Man):

José is a man of Hispanic origin. He and his family immigrated to the United States from Columbia two years ago. José has since then joined the Equal Rights for Hispanic Immigrants Association. He is an active supporter in the group's efforts to maximize rights of Hispanic immigrants. He frequently engages in local demonstrations and rallies in support of immigrants' rights. José and his family live in a primarily Hispanic neighborhood and speak very little English. He is employed at a local eatery where he busses tables.

Description 2 (Hispanic Woman):

Juana is a woman of Hispanic origin. She and her family immigrated to the United States from Columbia two years ago. Juana has since then joined the Equal Rights for Hispanic Immigrants Association. She is an active supporter in the group's efforts to maximize rights of Hispanic immigrants. She frequently engages in local demonstrations and rallies in support of immigrants' rights. Juana and her family live in a primarily Hispanic neighborhood and speak very little English. She is employed at a local eatery where she busses tables.

Appendix E

Mood Evaluation Questionnaire

Using the provided scale, please indicate the extent to which you are feeling each of the following items. (2 pages)

1 = not at all, very little

7 = extremely, very much

Happy

Not At All Very Little	1	2	3	4	5	6	7	Extremely Very Much
---------------------------	---	---	---	---	---	---	---	------------------------

Sad

Not At All Very Little	1	2	3	4	5	6	7	Extremely Very Much
---------------------------	---	---	---	---	---	---	---	------------------------

Content

Not At All Very Little	1	2	3	4	5	6	7	Extremely Very Much
---------------------------	---	---	---	---	---	---	---	------------------------

Satisfied

Not At All Very Little	1	2	3	4	5	6	7	Extremely Very Much
---------------------------	---	---	---	---	---	---	---	------------------------

Disappointed

Not At All Very Little	1	2	3	4	5	6	7	Extremely Very Much
---------------------------	---	---	---	---	---	---	---	------------------------

Exhilarated

Not At All Very Little	1	2	3	4	5	6	7	Extremely Very Much
---------------------------	---	---	---	---	---	---	---	------------------------

Angry

Not At All Very Little	1	2	3	4	5	6	7	Extremely Very Much
---------------------------	---	---	---	---	---	---	---	------------------------

				Surprised				
Not At All	1	2	3	4	5	6	7	Extremely
Very Little								Very Much

				Fearful				
Not At All Very Little	1	2	3	4	5	6	7	Extremely Very Much

Proud								
Not At All Very Little	1	2	3	4	5	6	7	Extremely Very Much

Ashamed								
Not At All Very Little	1	2	3	4	5	6	7	Extremely Very Much

Guilty								
Not At All Very Little	1	2	3	4	5	6	7	Extremely Very Much

Remorseful								
Not At All Very Little	1	2	3	4	5	6	7	Extremely Very Much

Envious								
Not At All Very Little	1	2	3	4	5	6	7	Extremely Very Much

Jealous								
Not At All Very Little	1	2	3	4	5	6	7	Extremely Very Much

Appendix F

Questionnaire for Stereotyping of African Americans as Basketball Players

Please indicate whether each of the following names belongs to either a basketball player or a non-basketball player. Mark **B** for basketball player and **N** for non-basketball player.\

- _____ Harvey Stone
- _____ Arthur Palmer
- _____ Maurice Cheeks
- _____ Mark Eaton
- _____ Lamont Turpin
- _____ Jerome Monroe
- _____ Shawn Kemp
- _____ John Merritt
- _____ Alonzo Mourning
- _____ Christian Laettner
- _____ Darryl Dawkins
- _____ Daron Blaylock
- _____ Danny Ainge
- _____ Toni Kukoc
- _____ Antoine Carr
- _____ Lerone Glover
- _____ Kevin McHale
- _____ Jack Connell
- _____ Kenyon Burrough
- _____ Will Perdue
- _____ Lamar Rochester
- _____ Alphonse Martin
- _____ Derek Harper
- _____ Sam Meyers
- _____ Steve Pearlman
- _____ Patrick Orr
- _____ Bill Laimbeer
- _____ Reggie Newton
- _____ Fred Murray
- _____ Rick Smits
- _____ Bill Walton
- _____ Jamal Mashburn
- _____ Everol Tubbs
- _____ Karanja Jackson
- _____ Xavier McDaniel
- _____ David Wolf
- _____ Theo Thomas
- _____ Tom Chambers
- _____ Tyrone Hill
- _____ Eric Griffi

Appendix G

Questionnaire to Assess Expertise in the Field of Professional Basketball

Please answer the following questions to the best of your ability.

1) How many hours each week do you spend watching basketball games during the season?

2) List the names of basketball teams that won the Eastern and Western championship titles during the past three years.

3) Please list and define any rules that you are aware of in professional basketball.

4) On a scale of 0-10, where would you rate your overall knowledge of professional basketball? Please circle one.

0 = No knowledge at all

10 = Extremely knowledgeable

0 1 2 3 4 5 6 7 8 9 10

Appendix H

Questionnaire for Stereotyping of African American and European American Names

Please indicate whether each of the following names belongs to a White person or Black person.
Please mark **W** for White and **B** for Black.

_____ Danny Ainge
_____ Daron Blaylock
_____ Kenyon Burrough
_____ Antoine Carr
_____ Tom Chambers
_____ Maurice Cheeks
_____ Jack Connell
_____ Darryl Dawkins
_____ Mark Eaton
_____ Lerone Glover
_____ Eric Griffin
_____ Derek Harper
_____ Tyrone Hill
_____ Karanja Jackson
_____ Shawn Kemp
_____ Toni Kukoc
_____ Christian Laettner
_____ Bill Laimbeer
_____ Alphonse Martin
_____ Jamal Mashburn
_____ John Merritt
_____ Sam Meyers
_____ Jerome Monroe
_____ Fred Murray
_____ Kevin McHale
_____ Xavier McDaniel
_____ Alonzo Mourning
_____ Reggie Newton
_____ Patrick Orr
_____ Arthur Palmer
_____ Steve Pearlman
_____ Will Perdue
_____ Lamar Rochester
_____ Rick Smits
_____ Harvey Stone
_____ Everol Tubbs
_____ Lamont Turpin
_____ Theo Thomas
_____ Bill Walton
_____ David Wolf

Appendix I

Questionnaire for Stereotyping of Hispanics as Soccer Players

Please indicate whether each of the following names belongs to a Soccer Player or a Non-Soccer Player. Please mark S for Soccer Player and N for Non-Soccer player.

- _____ Francisco Diaz
- _____ Tim Howard
- _____ Zach Thornton
- _____ Eddie Pope
- _____ Oliver Wilcott
- _____ Leo Lozada
- _____ Angelo Falcon
- _____ Cesar Velazquez
- _____ Alberto Rocha
- _____ Ross Sterling
- _____ Hector Flores
- _____ Eddie Lewis
- _____ Rob Timlin
- _____ Lucas Barrios
- _____ James Ackerman
- _____ Alex Howard
- _____ Matias Arce
- _____ Steve Ralston
- _____ Danny Reeves
- _____ Saul Solorzano
- _____ Dan Polster
- _____ Gonzalo Bidal
- _____ Diego Morales
- _____ Alan Norris
- _____ Chad McCarty
- _____ Josh Wolf
- _____ Arturo Vargas
- _____ Eric Denton
- _____ Greg Vanney
- _____ Silvestre Reyes
- _____ Ernesto Marchisio
- _____ John Barnes
- _____ Jorge Santos
- _____ Jose Villarreal
- _____ Marcelino Galoppo
- _____ Oscar Bazan
- _____ Jorge Quinteros
- _____ Ronaldo Cruz
- _____ Joe Cannon
- _____ Pierce Lively

Appendix J

SOCCER

Questionnaire to Assess Expertise in the Field of Professional Soccer

Please answer the following questions to the best of your ability.

5) How many hours each week do you spend watching soccer games during the season?

6) List the names of soccer teams that won the championship titles in North America and Argentina during the past three years.

7) Please list and define any rules that you are aware of in professional soccer.

8) On a scale of 0-10, where would you rate your overall knowledge of professional soccer?
Please circle one.

0 = No knowledge at all

10 = Extremely knowledgeable

0 1 2 3 4 5 6 7 8 9 10

Appendix K

Questionnaire for Stereotyping of Hispanic Names

Please indicate whether each of the following names belongs to a White person or Hispanic person. Please mark W for White and H for Hispanic.

_____ James Ackerman
_____ Matias Arce
_____ John Barnes
_____ Lucas Barrios
_____ Oscar Bazan
_____ Gonzalo Bidal
_____ Joe Cannon
_____ Ronaldo Cruz
_____ Eric Denton
_____ Francisco Diaz
_____ Angelo Falcon
_____ Hector Flores
_____ Marcelino Galoppo
_____ Alex Howard
_____ Tim Howard
_____ Eddie Lewis
_____ Pierce Lively
_____ Leo Lozada
_____ Ernesto Marchisio
_____ Chad McCarty
_____ Diego Morales
_____ Alan Norris
_____ Dan Polster
_____ Eddie Pope
_____ Steve Ralston
_____ Danny Reeves
_____ Silvestre Reyes
_____ Alberto Rocha
_____ Jorge Santos
_____ Saul Solorzano
_____ Ross Sterling
_____ Zach Thornton
_____ Rob Timlin
_____ Jorge Quinteros
_____ Greg Vanney
_____ Arturo Vargas
_____ Jose Villarreal
_____ Cesar Velazquez
_____ Oliver Wilcott
_____ Josh Wolf

Author Note

Mary Gordon Seay, Department of Psychology, Sweet Briar College.

The current research was conducted to examine the relationship between positive, negative and neutral mood states on person perception. Specifically, the effects of mood on the mood congruency effect and the use of stereotypes among African Americans and Hispanics in the United States were examined. Some, but not all, findings were supportive of the tested hypotheses.

I would like to acknowledge Dr. Roberta Sadler and Dr. Virginia Cylke of Sweet Briar College and Dr. Keli Braitman of Randolph-Macon Woman's College, for their dedication and guidance throughout this project. Thank you as well to the students who volunteered to participate in this research, and to the Sweet Briar College Psychology Department, for their continued support and assistance.

Correspondence regarding this research should be sent to Mary Gordon Seay via e-mail, at seay04@sbcc.edu, or postal mail, at 9541 Oldhouse Drive, Richmond, VA 23233.

